

HOKUSAI

Over the years many paintings have attracted me, become my *friends* and have continued to give me pleasure. Rather than look at all the paintings in a gallery I like to spend the available time with my favourites. I have already mentioned how on a trip around the Uffizi just half a dozen paintings are enough to completely exhaust all my senses. It is the same in most museums.

Monet's *Canal Poplar Trees* has been one of my favourite paintings since the first time I saw it. Monet did several versions over different seasons so I guess, like Cézanne and Mont Sainte-Victoire, the composition must have fascinated him. What was it about the scene that so intrigued him?



'Canal Poplars', by Claude Monet

Some years ago I was visiting 'old friends' in one of London's galleries and happened to pass by the museum's version of *Canal Poplars* just as a curator was lecturing a group of children about the painting. I stopped and eavesdropped on his explanation that went as follows: *Monet has captured the tension of Nature in this painting. The leaves are like a coiled steel spring being held down by wire ropes!* I could see what he meant, but was this really *why* Monet returned to paint the trees time and time again? I don't think so.

I have never been bothered by *why* an artist repeatedly returns to paint the same scene, but art historians seem to have a different approach and love to gnaw continually at the bone of the *deep and meaningful*. However, for the sake of what I am going to try and explain over the next few pages, perhaps it is worth asking the question *why*, so I can attempt to justify my belief that the answer is good old pure and simple *Symmetry*.

I believe Monet was painting what Hogarth called the *Lines of Beauty*, which is the form the autumn leaves take in *Canal Poplars*. In 1753 Hogarth wrote a book entitled *The Analysis of Beauty* in which he defines *beauty* as a thin wire that starts at the point of a cone and winds down and around it to its base. He proposed *seven different lines* and named *number four* the *Line of Beauty*.



'The Analysis of Beauty', by William Hogarth

I believe it can be seen in all well-balanced paintings and sculptures and is one of the connections between mathematics and art. I like to call Hogarth's 'Line of Beauty' the *Line of Grace* and used it in my sculpture *Innocence* (p. 594).

When I look at the *Canal Poplars* I see an upside-down *Line of Beauty* in the leaves, but I think there is another factor in this painting that makes it special and that is the *symmetry*, because Monet has hinted at the *Line of Beauty* in the reflection of the same leaves in the canal water. If you have another look at painting I hope you will see what I mean.

I believe there are two factors in this stunning painting that join to make it very attractive to the viewer's 'artistic appreciation'. What is *beauty* and what is *artistic appreciation*? To find the answer to that question you have to consult experts like Kenneth Clarke, the author of *Civilisation*, or Vincent Cronin in his two volumes on the *Renaissance*. Through my conversations about the evolution of the human brain with my friend John Miller, the director of Center of Computational Biology at Montana University, I have learnt that human brains perceive *beauty* in *symmetry*, or to put it another way, *symmetry is beauty*.

Many books have been written on the symmetry that is found in Nature, for instance Lockwood's *Curves* and D'Arcy Thompson's *On Growth and Form*. These two books cover every form of spiral structure that has evolved, from Nautilus shells to Antelope horns to human skulls.

One of the most famous examples of how important *symmetry* is to *natural selection* is neatly demonstrated by 'swallows' tails'. Female swallows only show interest in male swallows if their twin tail feathers are exactly the same length. This is easily demonstrated by nipping a 1/4 inch off one of the males' tail-feather points, because if you do, the poor creature is shunned by the females. There are many other examples of the same thing in other animals. We are also animals and although culture may have hidden this side of our visual selection, I am sure it is there if you look under the surface.

After leaving Monet's *Poplars* I went to gaze at one of the most beautiful paintings I have ever seen. Bronzino lived from 1503 to 1572, which means he was born the year Michelangelo carved the *Pitti Tondo* and grew up to paint in a vogue that was set by him. Bronzino's *Venus, Cupid, Folly and Time*, suggests 'decadent eroticism under the pretext of a moralising allegory' according to the *Oxford Companion to Art*! I love the painting because to me Venus is posed as the *Line of Grace*, the perfect combination of *beauty* and *symmetry*.



'Venus, Cupid, Folly and Time', by Bronzino

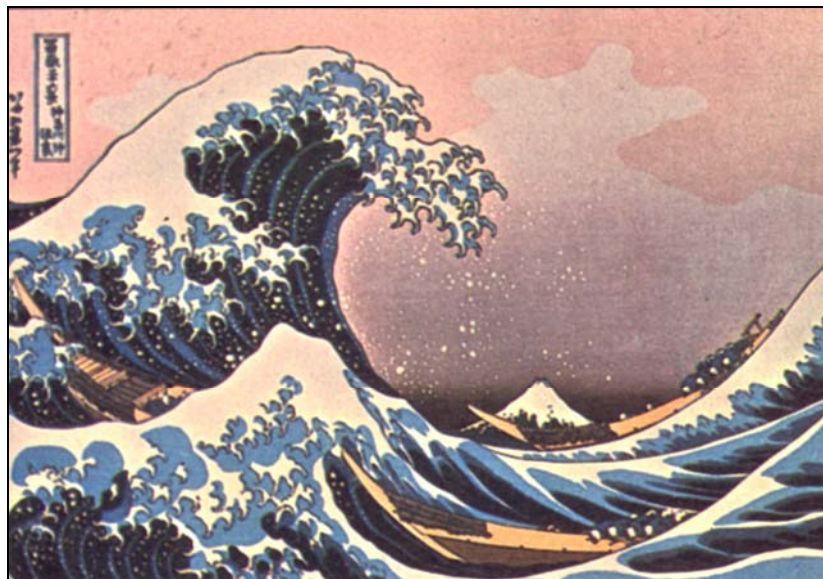


'Double Oval', by Henry Moore

Once when we were in New York Margie and we took the train out to the suburbs to see the PepsiCo Sculpture Park. The one appealing feature of Henry Moore's sculpture *Double Oval* is its symmetry!

I am told that when the film studios in Hollywood are judging whether or not a woman's face is truly beautiful they take a front-on photograph and cut it down the middle, keep one side, make a reverse copy and stick the two together. If the face remains the same then she is thought to be beautiful. Beauty is in the eye of the beholder and we men love looking at beautiful females! Our *artistic appreciation* is stimulated by *symmetry*. Margie tells me that women react in the same way to handsome men! The dictionary says the word *handsome* means *having regular and well defined features!*

Some years ago we went to see an exhibition of Hokusai prints at the British Museum. *The Great Wave* has always enthralled me and was the first picture that Margie remembers as a child, aged five! *Mount Fuji from the offing in Kanagawa*, commonly known as, *The Great Wave*, is a tiny woodcut print being only 15 inches wide, but the power within this small area is immense and captures one's imagination. For me, and I am sure like most people, the element that fills my eye is the *wave* itself. We bought a print and hung it in the bathroom where it just so happens I can see it in the mirror when I take a bath!



'The Great Wave', by Hokusai, 1835

Around about this time I was working on my Symbolic Sculpture Series of maquettes. One of the values of human behaviour that I wanted to capture was 'emotion', which I started to think of as a 'wave'. I promise I did not sit down and copy Hokusai's *The Great Wave*, but I am sure the image was hidden away in my subconscious! In my mind's eye I saw 'emotion' as an engulfing force crashing down on the rational senses, and something that we are powerless to control or fight against, be it fear, love, hate, jealousy, anger or the sheer joy of spontaneous laughter. For me the form of a breaking wave is the perfect image to express all of these emotions.

I don't see this engulfing force as being chaotic, but instead as something smooth and solid, all-powerful, and perfectly formed, although once engulfed

by the emotion then of course chaos follows! We lose our tempers, or get swept along in glorious ecstasy when the wave breaks. We can be in a black rage of temper or a white-hot light of unbelievable happiness; in utter despair or experiencing a feeling of well-being that is beyond comprehension. My *Wave* is based on the feeling of *love*.



Wave

In our little 36-print booklet on Hokusai that we bought at the exhibition, twelve of the pictures have an equilateral triangle in the foreground of the print to match the shape of Mt Fuji. One of the twelve is *The Great Wave*, the symmetry being the wave on the left-hand bottom corner, which takes me back to lying in the bath looking at the print reflected in the mirror over the basin. One day I suddenly realised that *I could not see Mount Fuji*, the electric light having washed it out. Instead the wave in the foreground had become the mountain and I realised that it was this symmetry that gave the painting such deep perspective. It was a 'eureka' moment for me, bath and all!

In 2004 my niece Georgina purchased a house near Agecroft that had an indoor swimming pool with a 45-foot long wall that I thought was the perfect canvas for a mural like the 35-foot long one of the Matisse *Dancers* I did in Aspen for Robert Hefner III.

I tentatively suggested to her that we should paint *The Great Wave* on the wall and was delighted when she said that the woodcut was also one of her favourite prints. Because the wall was so long I thought that I should try stretching the painting in the computer, as I had done with the *Dancers*, and at the same time enhance the blues and remove the pinks. I was really pleased with the result as it made the wave in the forefront even more prominent and the large one less threatening. The symmetry in the painting is quite remarkable and I felt by stretching the image actually emphasised it. I can just hear all the purists shrieking as they pull their hair out!



The computer-stretched 'Great Wave'

Stretching the wave to 25 foot long still left 20 foot of blank wall so I thumbed through the Hokusai booklet to see if I could find something to fill in the empty space. I found the perfect print in *Mount Fuji from Kajikazawa*. I knew the image because it is one of the twelve that have the equilateral triangle in the foreground, formed in this case by the jutting-out rock, the fisherman and his four lines stretched out into the sea. Hokusai doubled the effect by shading only one side of Fuji to counterbalance the dark green rock. *Symmetry!*



'Mount Fuji from Kajikazawa', by Hokusai

The woodcut was the wrong way round for me so I flipped it in the computer, and then removed Mount Fuji, before joining the two images together while calming the sea on the right of *The Great Wave* so the two would

merge. I now had a triple example of symmetry, as there were two foreground triangles and one Mt Fuji!

The next thing was to see how this combination would fit on the wall so I took a photograph of the swimming pool and drew my image on it. When I showed this to Georgina she was as delighted as I was and then pointed out that we could just paint the whole thing out if it turned out to be a failure!

I hope Hokusai will not be too up-set if I meet him in the *artist's studio in the skies!* I shall have to throw a party and ask him, along with Matisse and Michelangelo, and apologise to them all for what I have done to their work!



Painting by Numbers

Painting the mural was one of the most fun things I have ever done. It took a week to complete and I enjoyed every moment, every stroke of the brush. It turned out to be very simple to do as it was like *painting by numbers* in a child's art book. What I really like about the painting is the fisherman looking straight at the oncoming Great Wave and wondering just what is he thinking? Maybe, "*Time to pack up and go home?*"



The Great Wave at...



Georgina helping to paint a boat

When the painting was finished Margie and I took to the pool to see the effect from water level. Swimming under the *Great Wave* is quite an experience and incredibly calming! Hokusai was 75 years old when he painted his famous *36 Views of Fuji* in 1835. Well, that's only five years older than me!

To balance the room across the water from the *Great Wave* I painted my favourite Matisse paper cut-out, *Blue Nude*, done when he was in his eighties! I think the nude is scratching her head and wondering what the hell is going on across the pool.



...Wyndham Barns





'Blue Nude', by Matisse



'Self-portrait', by Hokusai, 1760–1849