Chapter 3

The arrival of Modernist teaching methods

Introductory

The previous chapter gave examples of artistic practices which had their origin in the Italian Renaissance and which became an integral part of the teaching in the academies. All of these had their advantages and disadvantages. Roughly speaking, as might be expected, they worked well for the purposes for which they had been intended but badly when used inappropriately. Unfortunately, over time their misuse has become widespread.[1]

In the second half of the nineteenth century a radical change took place in the way artists thought about their work. Eventually, this was reflected in new teaching methods, a number of which became standard practice during the 20th century.

All these new methods were well established by the time I started teaching in the 1960s and all have enjoyed considerable popular success up to the present day. One reason for this is that they have had persuasive advocates, the best known of whom are Kimon Nicolaïdes[2] *and Betty Edwards.*[3] *Another is that they can indeed help people to look and to do in new ways. In particular, teachers have found that beginners can be expected to make rapid, transformative early improvements. Unfortunately, in the longer term, they have their limitations. Indeed, unless modified or built upon appropriately, they can only too easily cause progress to grind to a halt.*

The purpose of this chapter is to provide a short introduction to the ideas-revolution which gave rise to these much used teaching tools. Each of the following five chapters describes one of the tools in detail, explaining why it works,

1 See BOOK 2, "*Drawing with Knowledge*", which explains the nature of the misuse and proposes a new way of using them, namely as guides to looking.

2 "*The Natural Way to Draw"* (1941), Houghton Mifflin, Boston

3 "*Drawing on the Right Side of the Brain"* (1979), Tarcher, Los Angeles.

indicating its limitations and offering a number of preliminary hints as to how the good in it can be built upon.

The breakthrough

The artistic practices described in the previous chapter were all devised to help artists achieve *accuracy*. Those introduced in the next five chapters reflect a radical shift in what artists were aiming for. A new conception of the *experience of seeing* gave birth to a new interest in such matters as ***personal expression***, ***experienced reality***, ***selection*** and ***abstraction***. A major contributing cause of this change in mindset was a revolution in the scientific understanding of *visual perception.* This had its origins in the 18th century and gathered momentum in 19th century. The key that unlocked the door was a new conception of "*colour*". Everyone had always assumed it to be what we see it as being, namely a property of surfaces in the external world, and Isaac Newton had confused ***colour*** with ***light***. But both of these misconceptions were challenged when scientists were able to accumulate an impressive body of evidence for a completely new possibility, namely that *colour is actually made in the head by neural networks situated in the eye and the brain.* Two scientists involved in this process had links with the world of artists. They were:

- Johann Wolfgang von Goethe, the German poet, playwright and passionate investigator of visual phenomena, who, in his *Theory of Colours*, 1810, provided observations of "*induced colour*" and developed ideas concerning the relation between colour and emotion.
- Michel Eugène Chevreul, whose 1837 book proposing the theory of "*simultaneous colour contrast*" drew attention to a new range of eye/brain induced colour excitements.

The importance of these two men in the history of painting is that their research had a strong influence on the early ***Impressionists*** and their immediate successors, particularly through the mediation of Eugène Delacroix. In his enthusiasm for the findings of Chevreul, this father-figure to the young *Impressionists*, significantly changed his own working practice in ways that influenced theirs. Later, the ideas of Goethe were to impact on Van Gogh's and Gauguin's *symbolic use of colour* and on Kandinsky's beliefs concerning the "*spiritual in art*".

Although the new ideas about colour had no direct relevance to making achromatic drawings in pencil, charcoal or ink, it was not long before the scientists realised that colour is by no means the only experience that is made in the head.

Indeed, they soon found evidence that *all conscious experience is a creation of the combination of sensory systems and the brain,* whether it relates to vision, smell, taste, sound, pain, touch, etc..[4]

This game-changing conclusion was based on an accumulation of evidence that *appearances can be deceptive.* Of particular importance in the process was the phenomenon of *constancy*. Whether the scientists focused on *size, orientation, shape*, *lightness* or *colour,* they discovered that appearances are much more stable than physical measurements predict, whether these be made with a ruler, a protractor or a light-meter.

Students (particularly adult beginners) and their teachers will be only too aware of the difficulties caused by the eye/brain's ability to find stability in an actually changing world. The constancies of *size, orientation* and *shape* account for a variety of recurring errors in drawings made from observation. For example, they explain why so many people tend to draw:

- Heads too big for the body.
- Near vertical or near horizontal edges as being respectively too vertical or too horizontal.
- The tops of bowls (and other cylindrical forms) and table tops (and other rectangular forms) as being respectively rounder or squarer than a tracings of them on a tracing glass would be.

In summary, the frequent occurrence of these and analogous errors gives support to the findings of scientists that the *actuality of visual experience* differs significantly from a photographic image or anything that can be copied using the traditional artistic aids described in the last chapter. They tell us clearly that there is a highly significant difference between "*experienced reality*" and "*measured reality*".

Good and bad habits

It is common for people to talk about *habits* as being either "*good*" or "*bad*" and to perceive them as either underpinning or interfering with their ability to perform some task in a satisfactory way. The habit-driven skills required for drawing from observation are no exception. Few would disagree that inappropriate habits of both looking and doing hold back beginners. But what about advanced drawers? Surely it is their habits (skills) of looking and doing that explain their high level of performance?

4 *"What Scientists can Learn from Artists",* for in depth information on this subject.

Yes they do. But at a cost, for habit-based analysis is founded on existing knowledge and therefore cannot be used for analysing *unfamiliar* aspects of appearances. Degas showed that he understood this when he said, "*I must impress on myself that I know nothing at all, for it is the only way to make progress*". The progress he sought was in terms of capturing the uniqueness of appearances in his drawings and by definition "*uniqueness*" cannot be known about beforehand.

Finding uniqueness

The same conclusion can be reached by another route, starting with two propositions:

- *Familiarity involves perceiving something as being the same as something else that has been seen in the past.*
- *There are no two objects in the natural world that provide identical visual input on, not even when they are the same object seen from different viewpoints or at different points in time.*

If we accept these statements, we are forced to agree that nothing at all can be familiar. However, we all know that this cannot be true, since by definition we can only recognise what is familiar and we can recognise huge numbers of objects.

Does this mean that the way in which the eye/brain works defies logic? Of course not. But to explain how this can be so, it is necessary to stop thinking of visual perception as one process mediated by one visual system and start thinking of it as many processes mediated by a number of different *visual-systems* each dealing with a different modality of information.[5] This arrangement can be described as "*multimodal processing*", the great advantage of which is that it accesses the mathematically demonstrated classifying power of *cross-correlation*. It is this that enables the eye/brain to classify different objects as being the same. The reason why is that it can produce precise classifications on the basis of imprecise information. For example, I have asked many people to say what the description "*round, red and slightly squishy* " brings to their mind. Something like 90% of them answer"*a tomato*". But, if I had asked only "*what is round?"* or *"what is red?"* or *"what is slightly squishy?"*, many different answers would have been forthcoming and there is no particular reason why they would include a tomato.[6]

5 *"What Scientists can Learn from Artists"* provides an in-depth treatment of how the eye/brain works with particular reference to how it makes use of visually acquired information, when drawing and painting.

6 I have used this same example in other books in the series.

Nor do the differences between the objects have to be small. For example, we routinely recognise trees and chairs despite the considerable differences within these object types. Yet, roughly speaking, all trees have similarities of form and colour and all chairs have surfaces of approximately the same size, at a convenient height for sitting on. The cross-correlation made possible by the different visual systems means that there is no need for precise descriptions.

The implication of all this for artists when drawing or painting from observation is of fundamental importance. Since in everyday life there is no need to look precisely at any of the characteristics of appearance that they are wanting to depict, they will have no experience of doing so. The whole process will have to be learnt.

The birth of Modernism in painting

It was one of the happy coincidences of history that the scientists' discoveries relating to *experienced reality* first came to public attention around the time that many artists were feeling under threat from the recently invented *photograph*.[7] They were having to face up to the fact that a *brainless black box* could, in a *fraction of a second*, produce an image of a level of realism that would be beyond the reach of any but a small number of the most highly trained amongst them. Furthermore, no matter how accomplished the artist, the time taken to produce a finished painting would be likely to be measured in terms of hours if not day weeks and months, certainly not in mere fractions of a second. Even the most quickly made charcoal studies would take a number of minutes. Faced as they were by these hard facts, it is not surprising that many artists (particularly portrait artists) feared they might be in danger of becoming redundant.

What were the artists to do about the situation? In their search for an answer, they asked themselves whether paintings had anything to offer that photographs did not. Today's art galleries provide an idea of the abundance of responses they could have made, but in the latter part of the *19th Century* nobody knew what these would be. The artists of the day had to start from first principles. When they did so, they arrived at five propositions, all of which reflected the influence of the new understanding of the nature of visual perception. Unlike the brainless black box, they could:

- Look for ways of expressing their *feelings*.

7 If we want a date for the popularisation of the new ideas, a good candidate would be the publication in 1866 of "*Physiological Optics*", by Hermann von Helmholtz, who has been described as the "*Father of the Psychology of Perception*"

- Attempt to capture "*experienced reality*" rather than "*measured reality*"
- Be *selective* in what they choose to represent.
- Explore deviations from literal accuracy in the form of *exaggeration* or *distortion*.
- Seek to *abstract* the essence of what they were looking at.

The problem that they now faced was how to manifest these differences in actual artworks and, to make the challenge even greater, they added a fundamental and overriding question:

- "How can we decide what is "*good*" and what is "*bad*?"

It was the search for answers to these possibilities and this question that led to so many revolutionary developments not only in the practice of drawing-from-observation but also in the way it was taught.

Summary and conclusions

The purpose of this chapter is to prepare the way for describing a number of teaching methods which were devised after artists decided to:

- *Give greater priority to the "expression of feelings".*
- *Turn away from "measured reality" in favour of "experienced reality".*
- *Rethink their criteria for "good" and "bad".*

A part of this preparation has been to emphasise the historical importance of scientific ideas in the development of artists ideas and practices. As we shall see in the following pages, they were of great help when it came to identifying new possibilities, recognising previously unsuspected problems and finding solutions to them.

The next chapter will be devoted to the "sketch" which provides a bridge between the old ways an new. Each of the remaining chapters in PART 2 will be dedicated to a different strategy that has been widely used by 20th and 21st century artists and art teachers. In each case explanations as to why the particular method is effective will be followed by an in depth discussion of its limitations.

The purpose of PART 3 is to provide practical ways of building on the strengths and circumventing the weaknesses of existing approaches to teaching.[8]

8 Further help is given in *"Drawing with Knowledge"*