INTRODUCTION

This volume offers practical guidance on drawing-from-observation, whether the aim is accuracy or expressive power or whether the artist prefers to work slowly or fast. It builds on well-known artistic practices and teaching methods, explains why they have proved to be of lasting value and points out some of their limitations. While agreeing with Betty Edwards, the author of the extremely popular "Drawing on the Right Side of the Brain", that "everyone can learn to draw", it both gives a great deal more practical help than she does and provides more convincing reasons as to why its suggestions will work. The arguments, like hers, refer both to traditional artistic practices and to scientific studies. However, the research described in the following chapters is wider ranging, more up to date and more demonstrably relevant to drawing practice. It provides new and reassuring information on human visual capacities, clarifies the nature of the obstacles facing everyone and indicates effective ways of circumventing them. Whatever the starting point or aspirations, it opens the way to higher levels of performance.

During my 25 years teaching at the Painting School of Montmiral I have had the opportunity of testing the ideas on hundreds of students of all levels of attainment and a wide variety of aspirations. Experience shows that the early progress is likely to be rapid (particularly in the first day or two) but as with all skills the highest levels of attainment require a longer term commitment. However it cannot be denied that early difficulties seem more daunting to some people than for others. Should this turn out to be your case, there is no need to be discouraged. No matter what your starting level, you can have confidence that, if you persevere, the new ways of looking and doing advocated in these pages will help you to far exceed your expectations.

THE SCIENTIFIC PERSPECTIVE

The originality of this book owes a great deal to science. As much of this will be unfamiliar to readers, a few words on some of the key ideas are appropriate. These centre on the subjects of "the variability of appearances" and "recognition".

My experience as a teacher makes clear that everyone has difficulties with the accurate depiction of the outlines of objects. My research at the University of Stirling into how artists use their eyes when drawing and painting helps us understand why. It also suggests ways of making accurate drawing easier, faster

and more expressive. A useful preparation for understanding the nature of these is the realisation that no two objects or parts of objects ever present the eyes with the same outline, even ones that are classified as the same object-type.[1] *More significantly still, because appearances are altered by every change in viewing angle and viewing distance, even the same object will never be identical in shape if looked at on different occasions, unless viewed from exactly the same place. Each set of relationships, whether between different sections of contour or regions colour will always be unique.*

*An extremely important implication of this unvarying rule of variability and the consequent uniqueness of all perceived objects is that the precise nature of the contours artists seek to represent can only have a supplementary role in the processes that enable "**recognition**". The details of shape will be ignored in favour of generalisations, unless preliminary interpretations need to be confirmed by use of the **analytic-looking systems,** or unless knowledge concerning their location is required for a practical manoeuvre, such as grasping the already recognised object.*[2]

*Most people feel that they experience **recognition** as a conscious activity. But they are wrong to do so for, as illustrated in Figure 1 in the 'Glossary' at the end of this book, this key process in sensory perception always takes place before conscious awareness is achieved. This is because the function of recognition is to access the **knowledge** required for activating instructions as to how to react to the recognised object. The reaction is always in the form of **action instructions**. These may be concerned with guiding arm, leg or other body movement or they may direct the **eye movements** that target aspects of appearances that require special **attention**. It is only at this analytic-looking stage that **consciousness** has a role in visual perception.*

*But how does the eye/brain know where to target attention? It may help when seeking an answer to this question to remember that **analytic-looking skills**, like all other skills, are developed for specific purposes. Some skills, such as the ones learnt when very young, create platforms for more advanced ones. Anybody who sets themselves to learn a totally new skill has no option but to start with existing skills and these will always be a compound of basic skills learnt as an infant, such as those required for grasping objects or for guiding the direction of crawl-*

1 With the exception of perfectly round objects.

2 For more detail on this see the '*Glossary*' or "*What Scientists can Learn from Artists*".

ing, and more advanced ones that have been developed later, such as driving a car, mastering keyboard skills or playing a sport.

Evidently, if we wish to acquire complex visually mediated skills, we will have to learn appropriate ways of looking. For this reason, although people learning to draw for the first time might have had experiences relating to other tasks that have allowed them to develop skills that could contribute the acquisition of drawing skills, they will never be enough. No matter how near the fit, they can only be of limited use unless appropriate ways of building upon them are developed.

If advanced artists assume that all this has no relevance to them, they should think again. The handicap of being saddled with old knowledge when facing new situations does not only apply to learning skills in hitherto untried domains of activity. It also applies to developing any skill beyond its present stage, no matter how well honed that may be. When Edgar Degas, one of the most skilled drawers in history, asserted, "I must impress on myself that I know nothing at all, for it is the only way to make progress", he was making the claim that, if the uniqueness of a pose is to be discovered, fresh ways of looking will be required, no matter what the subject matter. In view of the unvarying variability of appearances, there is no alternative but to agree with him.

A more familiar and general way of expressing the above conclusions is that learning new visually mediated task requires leaving aside bad, old habits in favour of adopting good, new ones. This book provides comprehensive information concerning how this can be done.

THE STRUCTURE OF THIS VOLUME

'Drawing with Both sides of the Brain' contains two books: 'Drawing with Feeling' and 'Drawing with Knowledge'.

*'**Drawing with Feeling**' is divided into four PARTS:*

***PART 1** consists of one chapter which questions the widespread habit of considering "accuracy" and "expression" as opposites. It shows that this dichotomy is inappropriate if accuracy, rather than being made the goal, is considered as being:*

- *A tool for helping us to see and feel in new ways.*
- *A necessary preparation for the exploration of the dynamics and expressive possibilities provided by distortion, exaggeration and abstraction.*

PART 2 *reviews traditional artistic practices and teaching methods that have stood the test of time, places them in their historical context and explains not only why they work but also the nature of their often significant limitations. It includes artistic practices and teaching methods that go back to the Italian Renaissance as well as ones developed in the 20th century, such as making use of "negative shapes", drawing contours while continuously looking at the model (CLAM) and various means for developing expressive mark-making. Other topics discussed are the* ***sketch****, the advantages and disadvantages of copying* ***photographs****, the use of* ***movement*** *to promote greater visual awareness and the practice of using very short poses as a means of loosening up at the start of life drawing classes. The chapter on the sketch provides the opportunity for an in-depth explanation of what is meant by the "feel-system", the entity which links the sensory aspects of line production to the full gamut of the emotions, and which provides the reason why this book is called "Drawing with Feeling".*

PART 3 *consists of a blow by blow, in-depth drawing lesson that shows how to build on the strengths and circumvent the shortcomings of existing approaches. It provides detailed help with looking strategies and shows how to develop the power of the feel system both as the motor of efficient eye/hand coordination and as a conduit of personal expression. Because so much of it is based on new research, it is significantly different to any other drawing lesson.*

PART 4 *uses drawings by Michelangelo and Matisse to remind the reader that the underlying purpose of the book is to provide conditions within which personal creativity can flourish.*

*'****Drawing with Knowledge****' is divided into three PARTS:*

PART 5 *: Explains that in this book the phrase "drawing with knowledge" refers to drawing from the imagination with the help of* ***construction rules****, with particular reference to the subjects of* ***linear perspective****,* ***anatomy*** *and* ***composition****.*

PART 6 *: Concentrates on* ***linear perspective****, which it treats in a completely new way. It reviews of the origins and history of its use in painting and drawing. One of the conclusions reached is that its rules and constructions are now widely used for purposes for which they were not intended and for which they are not suited. The actual purpose of developing the subject was to provide a basis for the construction of plausible images of imaginary objects and spatial layouts. Since its usefulness in this respect so is well known, since its*

rules themselves have been thoroughly understood since the Italian Renaissance and since they have been authoritatively documented on innumerable occasions, there is little to add to what is already available. In contrast, little if anything has been written on:

- *The disadvantages of using of **linear perspective** constructions as an aid when drawing from observation.*
- *The advantages of using it as a tool for revealing overlooked aspects of appearances and for countering problems due to distortions caused by the **constancies** of size and orientation.*

As an introduction to the discussion of these subjects, a demonstration I give to my students is described. This provides an easy to understand run through of basic principles, which emphasises some of the more surprising consequences of the three way interaction between the viewer, the subject matter and the picture surface. It is important to do this because, despite the rules of linear perspective having been well known for so many centuries, too many books, articles in art magazines and, it would seem, teachers have provided misleading accounts of them of them.

***PART 7** : Concentrates on the subject of **anatomy**, to which it gives a new twist. It starts by reviewing the origins and history of the subject in the context of painting and drawing. The spectacular advances in the understanding of anatomical structures that took place during the Italian Renaissance were accompanied by attempts to provide rules relating to proportions of the human body, such as one stating the number of heads that fit into the whole upright figure and the position of the eyes nose and mouth in the head. These were picked up by the **academies** and have been taught ever since as frameworks that can be used by artists when drawing figures from the imagination and, when given this constructive function, they have proved to be of value.*

*Unfortunately, the same rules have also been used for a purpose for which they are ill suited, namely that of providing preliminary structures into which to fit drawings made from observation. The reason why the rules relating to **anatomy** cause problems when used in this way is that they are derived from physical measurements of particular bodies. Accordingly, they fail to take account the regular deviations from the posited norm due both to the combination of individual differences and, even more importantly, to the variations in viewing distance and angle that occur with respect to every pose.*

As already explained, the main reason for writing this book is that there is now available a great deal of new information coming from science which can help artists in new and effective ways. The general message for artists who aspire to draw from observation is that, while knowledge can be of great value as a guide to looking, it is worse than useless as a guide to doing. Although, in all other parts of the book and in all the subjects covered in "Drawing with Light and Colour", this new availability has provided me with many new proposals to make, in this part on ***anatomy****, it has little to offer that advances our understanding. For this reason I have contented myself with providing a personal presentation of second hand material that my experience as a teacher has shown to be useful to artists who wish to use knowledge of* ***anatomy*** *as a guide to looking. In this I owe much to Vernon Blake and Horace Lecoq Boisbaudran.*[3,4]

PART 8 *consists of one chapter. It is used to remind the reader that the underlying purpose of this book is to foster personal expression and creativity. In the process it provides a bridge to the final volume in this series, whose title is "Creativity : Seeing and Doing in New Ways".*

3 Vernon Blake, "*The Art and Craft of Drawing*", Dover 1995. Originally published by OUP in 1927.

4 Horace Lecoq Boisbaudran, "*The Training of the Memory in Art and the Education of the Artist*" (1862), which supplies detailed examples of how knowledge of anatomy can be used as a guide to analysis.