CHAPTER 8

Movement, speed and training the memory

Introductory

In the last chapter, methods of training the memory pioneered by Elizabeth Cavé and Horace Lecoq Boisbaudran were presented as precursors of photography because they enabled artists to reproduce 'snapshots' of the outside world from memory. This chapter also builds on their ideas, but this time the focus is different. Now it is on the possibility of increasing the speed at which the eye/brain picks up information when making drawings directly from observation.

The emphasis on the rapidity of information-pickup brings to mind Delacroix's assertion that any artist worth his salt should be able to complete a drawing of a man thrown out of a sixth storey window before he hits the ground. It also returns us to the drawing by Rodin reproduced in Figure 1, Chapter 5. Although there it was used as an example of modified CLAM, it also exemplifies rapid pickup of salient information, for the entire work could well have been completed in less than a minute.

As already suggested, two features that distinguish Rodin's image from the general run of CLAM drawings are (a) the impressive knowledge of anatomy it manifests and (b) the degree to which anatomical features are exaggerated. Lecoq Boisbaudran believed that the ability to produce analogous memory-informed exaggerations (or, alternatively, memory-informed simplifications) was one of the main advantage of following his method. He saw them as representing a different sort of accuracy: One filtered through the individuality of each artist's experience and feelings, rather than one bound by the straightjacket of literal appearances. In other words, his claim was that, in addition to rapid pickup of salient information, his method opened up possibilities for personalized responses capable of imbuing drawings with expressive power.

Historical context

Horace Lecoq de Boisbaudran explained his teaching methods in three publications. The first of these *"The Training of the Pictorial Memory"* was published in 1848[1] and the last, "*Letters to a young teacher*", 1876. [2] From these we learn of the importance he gave to finding ways of creating appropriately stocked memory stores. He argued that aspiring artists would not get very far unless they acquired and learnt to coordinate two kinds of knowledge, namely those of:

- Underlying structure, such as that enshrined in the rules of linear perspective and anatomy (The subject of Book 2 of this volume).
- Strategies for analysing abstract forms and relationships (The subject of Book 1 of this volume).

Lecoq Boisbaudran believed that achieving this combination required rigorous training over a long period of time. His students were asked to make numerous studies, first of simple shapes and, eventually, of complex objects. At all times the strictest accuracy was a priority. This was necessary, not as a goal in itself, but as a tool for extending awareness. His students were in awe of the rigour of his criticism. If any of them failed to meet his extremely exacting standards, he insisted on the whole process being repeated as often as was needed to produce a satisfactory result, no matter how long it took. The severity of his demands on his students was legendary.[3]

Many people are bewildered by Degas' claim that "*it is necessary to assume that I know nothing, for it is the only way to make progress*". How can his aphorism be reconciled with the artists' seldom, if ever, surpassed understanding of human anatomy, as demonstrated over and over again in his drawings and sculptures? The answer lies in the fact that Degas is talking about the first of the two kinds of knowledge mentioned above. He is focusing attention on the disadvantages of using existing knowledge to fill in parts of the drawing from memory, in an *intellectually realistic* manner, using generalisations based on previous examples of the same subject matter, that cannot, by their nature, represent the unique aspects of appearances.

What the adage omits to say is that knowledge of structure can also be harnessed to guide analytic-looking strategies (the second kind of knowledge mentioned above). And here we come to the nub of the matter, for it is this usage that needs to be developed if we wish to achieve faster, more accurate and more personalised information pickup.

1 "*Éducation de la mémoire pittoresque",* 1848

2 *"Lettres à un jeune professeur"*, Paris, Morel, 1876

3 He would keep struggling students back, long after everyone else had gone home.

Science and information pickup

Both the research I undertook at the *University of Stirling*, *Scotland* and the many years of experience working with students at *The Painting School of Montmiral* provided strong support for the evidence coming from Lecoq Boisbaudran and his followers that memory-training accelerates ***information pickup speeds***. It also provides a number of practical lessons. Amongst these, four have particular relevance to the subject matter of this chapter. These are:

- That the method of using accuracy as a tool for expanding awareness is a key factor in enabling the acceleration in the information pick-up speeds.
- That sloppy analysis will not furnish the information necessary for constructing the memory frameworks that are necessary for guiding the analytic-looking strategies required for the depiction of unique features.
- That, without investing as much time as necessary in this process, fast drawing is largely a waste of time because it provides so little useful feedback.
- That overlooking unique features, not only inhibits accuracy but also personal expression.

How then, should these lessons be applied to drawing class?

The figure drawing class today

A high proportion of students who come to my school arrive with similar ideas as to how a figure-drawing class should be run. The approach they favour is particularly popular with American students, but it is also common in the United Kingdom and other countries. Here I want to concentrate upon the ideas concerning the start of the lesson, because they relate to the subject-matter of this chapter.

According to my informants, each session should begin with a loosening up exercise, during which a number of fast drawings of the model are to be produced. To put the pressure on, the model is either asked to take up a number of different, very short poses (for example, two minutes) or, more demanding still, is instructed to move about. It would be surprising if these constraints failed to speed

up the drawing process and push matters in the direction of energetic mark-making. On occasion, drawings done this way may look as good as *Figure 1* which comes from Kimon Nicolaïdes' extremely influential book, "*The Natural Way to Draw*".[4] And, if they do, it is not difficult to see how the person making them and his or her teacher could feel pleased with the result. However, in my school the purpose of the figure drawing sessions is to help students to learn, and my question is whether unprepared fast drawing is a good way of achieving this objective?

Figure 1 : A fast drawing by a student of Nicolaïdes.

Also illustrated in Nicolaïdes' book is the drawing by Daumier that ap-

4 Kimon Nicolaïdes, 1941, "*The Natural Way to Draw*", Houghton Mifflin.

pears in *Figure 2*. It clearly took more than two minutes to make and it may not have even been done directly from the model, but it must have been made relatively fast. Furthermore, from its presence in his book, it can be supposed to be the kind of drawing to which Nicolaïdes hoped his method would lead. If not done from the model, Daumier's drawing must have been done from memory.[5] Whichever the case, the artist's deep knowledge of human anatomy is evident and can be assumed to be a part of the explanation for the wonderful sense of pose and the eloquent body language given to the two figures.

Figure 2 : A drawing by Daumier, illustrated in Nicolaïdes.

5 For example, it is plausible that Daumier could have been trained in memory drawing according to the method of Lecoq Boisbaudran.

If we look back at *Figure 1*, we may suspect that Nicolaïdes's student also knew something about weight and pose (though perhaps not quite so much as Daumier). Why do I think this? Partly because it is well known that knowledge of anatomy was widely considered to be a priority in the 1930s (when the ideas in "*The Natural Way to Draw*" were being developed) but, more importantly, because I have seen so many fast drawings that clearly lack it.

I certainly do not want to make any adverse criticism of the drawing in *Figure 1*. If one of my students had produced it, I would have been very pleased indeed. However, my job as teacher is to help people go beyond whatever happens to be their current stage of development. Accordingly, after suitable words of encouragement, I would have turned my mind to looking for ways of building on the platform the drawing evidenced. Nicolaïdes's book shows how he would have done this. The remainder of mine offers a range of alternative possibilities and my reasons for them. These are not necessarily incompatible with the approach of Nicolaïdes (or, indeed, the less fully worked out rerun of some of his proposals found in Betty Edwards's book), but they are certainly significantly different and go into much greater and more useful depth.

Alternatives

Before dealing with these alternatives in depth in the drawing lesson described in the following chapters, an appetizer might be useful. It starts with questioning the value of starting a lesson by loosening up either with two minute poses or with a moving model.

Long experience in the classroom tells me that, when a drawing is made very fast, the outcome seldom manages to match the relative coherence of *Figure 1*. But that is far from being the only shortcoming of the method for, no matter how many fast drawings are made, what lacks is evidence of progress from one attempt to the next.

My way of rectifying this situation is to turn matters on their head. The reason for doing so is to prioritise opportunities for students to create temporary, scene-specific memory structures that will facilitate the ability to produce quick, accurate drawings at the end of the lesson. And, indeed, in the longer run, to develop their *information pick-up* skills with a view to helping their speed and accuracy when making drawings from observation.

For this purpose, I divide the session up into a number of parts, each with a

different time limit. Whatever this is, the model is required to take up the same pose and the students are required to start a new drawing on a separate piece of paper. The time limit is set such that each drawing has to be done in less time than the one before. Typical durations are as follows:

- ***One hour*** or longer allowing for a slow and careful study. While the students are occupied with this, I do my best to help them according to the battery of ideas that provide the core subject matter of this book (see *PART 3)*. My aim is that they should get both to *know* and to *feel* as much as they possibly can about the particularities of the pose.
- ***Twenty minutes***. When the students set about working on this second drawing, they find that they have learnt a lot from their previous struggles and, with the help of their new knowledge, they are able to make a drawing that is not only just as complete, but also one which is likely to be at least as accurate as the one that took three times as long to produce.
- ***Ten minutes***. Often much to their surprise, students find that 10 minutes is quite long enough to complete a drawing in something like the same detail and with much the same level of accuracy as before. I also notice that the lines are being put down with more sense of authority.
- ***Five minutes***. By now the pressure for speed is intense and, as a result, the students sometimes find themselves a bit at sea. However, it is surprising how many take it in their stride and how impressive the five minute drawings can be, not least with respect to accuracy.

In summary, the process of making sequences of progressively shorter studies has succeeded over and over again in training the *scene-specific memory* of the students such that they can pick up similar amounts of information in progressively shorter times.

Nor were my drawing classes the only source of evidence indicating the value of preliminary memory-training with respect to increasing the speed and accuracy of information pickup. Another source was a laboratory experiment, in which the experimental subjects made copies of simple arrangements of randomised straight lines that appeared briefly on a computer screen. This provided strong confirmation of the benefits of preliminary analysis on both pickup speed and accuracy in copies of simple linear relationships (relative length, relative position and relative orientation).[6]

6 The experiment is described in detail in *"What Scientists can Learn from Artists", Chapter 5*.

To complete the session, I ask the students to do one last task, namely to produce a final drawing of the pose they have just been working with, but this time ***from memory***. Experience tells me that this would have been a fruitless request at the beginning of the session. Now, often to their great surprise, virtually everyone is astonished to find how much they can recall. Significantly, at the end of the session, when we compare the sequence of finished drawings, students often ask each other which one of them was done from memory. Clearly, they would not have found it difficult to give an answer unless a great deal of memory-training had occurred.

Purposefulness

Another unexpected benefit of the method is that, without realising it, students will almost certainly have loosened up. People schooled in the old ideas might assume this is due to the shortness of the final poses. However, other evidence shows that, even though this may well be a part of the explanation, it cannot be the only, or even the most important one.

Over and over again, beginners who are engaged in the drawing lesson described in the next chapters, progress from wobbly lines at the outset of the session to confident ones in the middle of it. Their improvement is *sudden* and the change is likely to have happened *without their realising it* (to the extent that I often have to point out that it has occurred). This sudden transformation is characteristic of all skill acquisition. To give one of the multitude of possible examples, when learning to ride a bicycle the transformation between wobbling all over the place and something close to full control happens in a short space of time and is never subsequently forgotten. Significantly, in retrospect, the newly skilled cyclist can hardly imagine how something that he or she now finds so easy could ever have seemed so difficult.

The rapidity of the change from wobbly lines to relatively smooth-flowing ones leaves no time for developing muscle control capacities, which, accordingly, must have been already trained up to the necessary standard of performance. It follows that the critical change cannot have been in these capacities, but in adapting them to an unfamiliar task. As with the learner cyclist, everybody produces either scratchy or wobbly lines until the brain has worked out the new parameters for action. Once it has achieved this end, confidence replaces hesitancy, and nobody can quite imagine why previously they were having so much difficulty.[7]

7 More in *"What Scientists can Learn from Artists" and "Fresh Perspectives on Creativity"*.

Very occasionally, students experience a more stubborn problem with wobbly line production. If so, I advise using the method of loosening up chosen by evolution rather than that frequently adopted by drawing teachers. Young children seem to do it naturally, obtaining impressive results without troubling their heads about motor-control problems. It is of course scribbling. Five minutes of concentrated scribbling will loosen up anybody far more reliably and efficiently than five minutes of fast drawing-from-observation. It will do the job even better if the drawing instrument is dragged at a variety of speeds, using a variety of pressures, in as many directions as possible: up and down, from left to right, down and up, from right to left, vertically and diagonally, etc..

Speed

Some people might criticise the suggestions concerning the structure of the drawing lesson on the grounds that the whole process is unnecessarily protracted. In *Chapter 11* a similar programme in which relatively long drawing times are succeeded by progressively shorter ones, is suggested for copying a complex outdoor scene. In the example illustrated there (*Chapter 11, Figures 1-5),* the student took three hours to make his preliminary drawing. He may have needed so much time because he was following what was for him an unfamiliar method (the one advocated in my drawing lesson), and the first use of a new skill can be expected to be a painstaking and long drawn out business. Or, hopefully, he may have been slowed down by my insistence on treating the exercise, not as a means of obtaining accuracy, but as an opportunity for discovering the ever ephemeral uniqueness which characterises every aspect of all natural scenes.

Be that as it may, it is a theme of this book (and all the other books in the series) that the time taken to complete a task is less significant than the quality of the learning that takes place. The validity of the practice of using the progressively shorter drawing times should be judged solely in terms of its effectiveness in training information-pickup skills. In the case of the sequence of drawings just mentioned, the procedure's ability to do just this is suggested by the fact that although the drawings in *Figure 2* and *Figure 3* took significantly less time (thirty minutes and ten minutes), they both achieved similar or, even in some cases, greater levels of accuracy. Meanwhile the distortions can be compared to those of the Rodin's modified *CLAM* drawing and related to Lecoq Boisbaudran's claim that distortions of this kind can reflect the individuality of the artists responses.

But the outcome of the first attempt at testing a method is less important

than what is achieved in the longer run. Will the approach work on subsequent occasions? And will it open the way to a future of progressively better performances? In this respect the evidence is clear. The more preliminary drawings that are made of the same subject matter, the shorter the times required for completing additional ones.

An artist friend, with a deep knowledge of art history,[8] once told me that all the great masterpieces of drawing by established masters were produced in less than twenty minutes. Though this cannot be strictly true,[9] less than twenty minutes is a reasonable timespan for students to aspire to when first confronting a new model. Later, as information-pick-up skills evolve, much shorter times will become possible. Indeed, the idea of completing a drawing a man while falling from a sixth floor window may no longer seem so completely out of the question.

But be warned, There is no point whatsoever in trying to hurry up the process. The increase in speed and accuracy of pick-up will come in its own time. At every stage it is worth remembering:

- The insistence of Lecoq de Boisbaudran that analysis should always be as rigorous as possible.
- Degas' aphorism concerning the necessity of knowing nothing, due to the invariably uniqueness of every feature of the model.

The value of both reminders will be given ample support in *PART 3*.

Implications

If a life drawing session is intended to be a learning experience, the idea of having a period of time dedicated to short poses at the beginning has little to be said for it. It may help loosen up but in this respect it is a second rate alternative to scribbling. However, before criticising an approach, it is reasonable to check on its priorities. Is the idea to encourage existing skills for the pleasure of doing so? Or are the people opting for it, like Degas, wanting to open up new pathways for exploration through learning? In other words:

- *Do they want fall back on existing knowledge of appearances?*
- *Do they want to develop the memory frameworks that are capable of guiding strategies of looking that can take them beyond their existing knowledge?*

8 The much respected artist Adrian Heath

9 Unless his definition of "*masterpieces*" only included preliminary studies.

Those who make the latter choice will find that, in time, quicker, more accurate and/or expressive drawing will come naturally to them.

One big difference between Lecoq de Boisbaudran's way of teaching and mine is that his overlooks the advantages of focusing on the ***feel-system*** *(described in Chapter 4). Another is that his takes much longer. I am confident of huge progress within the first day and a transformation within a week. This will not produce the complete artist. Rather it will provide a base from which each individual can grow to maturity as an artist in his or her own way and in his or her own time.*

SUMMARY OF PART TWO - ESTABLISHED PRACTICES

The brief survey of the advantages and disadvantages of established artists' practices and popular teaching methods is complete. Its main conclusions can be summarised as follows:

- *Any practice or method that has lasted for a long time has done so for a good reason.*
- *The practices adopted by the Old Masters worked extremely well for the purposes for which they were intended. It is only when used inappropriately that problems arise.*
- *The difficulty with the more modern approaches is that, although they work well up to a point, beyond that point, they are only too likely to hinder progress. Unfortunately countless "how-to-do-it" books (including those written by Kimon Nicolaïdes and Betty Edwards) either use old methods inappropriately or fail to go beyond this critical point when presenting the new ones. This is a sad state of affairs, which needs rectifying.*

The purpose of the remainder of this volume is to show how this can be done, and to do so in the light of a combination of:

- *Revised historical perspectives.*
- *More up to date science.*
- *Many years of teaching experience.*

Perhaps the most important lessons lie in the two fundamental propositions that can be equated with the ideas of Lecoq de Boisbaudran. They are:

- *Good drawing practice requires appropriate memory-training*

- *This can take time.*
- *Rigour is necessary if anyone wants to achieve accuracy, personal expression, freedom and/or speed of mark-making.*

What modern research provides is overwhelming support to these propositions. It also suggests new, highly practical ways of building on them that are readily accessible to everyone. It is to these that we turn next.