Part One

Writing in the head
Chapter 1

The nature of writing

The aim of this book is to answer the question ‘How do we write?’ Writing is a peculiar activity, both easy and difficult. The more you think about how you do it, the more difficult it becomes. Everyday writing tasks, such as composing a shopping list or jotting down a reminder seem to be quite straightforward. You have an idea, you express it as a series of words and you write them down on a piece of paper. It is a natural and effortless process.

Yet we celebrate great writers as national heroes. Shakespeare, Eliot, Austen, Rousseau, Tolstoy, Joyce, Steinbeck, Sartre—they too expressed ideas as words on paper, but somehow they managed to transcend the everyday world and produce works of great insight, elegance and power.

There seems to be an unbridgeable gulf between everyday scribbling and great creative writing. It is not only a matter of having original ideas, though that certainly helps, but of being able to express them in just the right way, to communicate clearly or to excite passion.

Asking authors and poets how they work just widens the gulf. The descriptions you find in books of quotations seem to delight in separating creative writing from the everyday world. Thus, great writing is ‘the harmonious unison of man with nature’ (Thomas Carlyle), ‘the exquisite expression of exquisite impressions’ (Joseph Roux) or even ‘the achievement of the synthesis of hyacinths and biscuits’ (Carl Sandberg).1
Even *The Elements of Style*, for many years the handbook of writers and the arbiter of good prose style, has no explanation of the writing process, just questions and mysteries:

> Who can confidently say what ignites a certain combination of words, causing them to explode in the mind?...These are high mysteries.... There is no satisfactory explanation of style, no infallible guide to good writing, no assurance that a person who thinks clearly will be able to write clearly, no key that will unlock the door.2

With advice like that, it is no wonder that many would-be creative writers give up after the first few attempts and stick to shopping lists.

Alternatively, we can look inwards and try to analyse our own writing processes. There is no doubt that words well up from somewhere within ourselves and that we can mull them over in our minds, selecting some, rejecting others, before expressing them on paper. But the mental activities that cause particular words to appear in the mind, that allow words to flow smoothly on to paper one moment and then dry up the next, are hidden below consciousness.

So, lacking a coherent account of the writing process, we lapse into metaphors or rules learned at school. I have already called on the familiar hydraulic metaphor in the previous paragraph, through phrases such as ‘well up’, ‘express’, ‘flow’, ‘dry up’. Other metaphors for writing include pyrotechnics (‘burning with ideas’, ‘fired the imagination’), exploration (‘searching for ideas’, ‘finding the right phrase’) and bodily functions (‘inspire’, ‘writer’s block?’). Sigmund Freud, as you might expect, had the last word on metaphors for writing. He argued that since ‘writing entails making liquid flow out of a tube on to a piece of white paper’, it sometimes ‘assumes the significance of copulation’.3

There is nothing wrong with metaphors (I shall be relying on them at various points in this book) so long as they are enabling. But a metaphor can too easily become a substitute for understanding. If we were to accept the hydraulic metaphor then we should need to look for ways to ‘turn on the flow’ when ideas ‘dry up’ or to ‘mop up the overspill’ of words that ‘gush out’ from the ‘wellspring of the imagination’. We would soon be so immersed in the metaphor that we could only think through it. Metaphors should be adopted with care, so that they assist in describing writing, but do not act as a barrier to new ways of thinking.

What of the rules for good writing taught at school? The ones I learned have helped me through some tricky moments. They are an odd bunch of edicts: ‘a story should have a beginning, a middle and an end’, ‘put each new idea into a paragraph’, ‘start each paragraph with a reference back to the preceding one’, ‘don’t end a sentence with a preposition’, ‘make a plan before you write’, ‘think about your reader’. Most rules for writing are grounded in common sense and good practice. They can be good companions, always at hand to offer advice when in need, but they don’t constitute an explanation of writing, nor a means
to understand or develop your own writing abilities. And like most rules of
everyday living, they are most useful when learned and then selectively ignored.

This was the extent of our understanding when I first became interested in how
to write during the 1970s. There were numerous rules of grammar and style to
be learned, a few general principles, some pervading metaphors and many
unanswered questions.

Over the past 20 years these questions have begun to be answered and we now
have a surprisingly full and consistent account of how people write. It began
with the pioneering work of John Hayes and Linda Flower who studied writing
as a problem-solving process. 4 They adopted the simple but revealing approach
of asking writers to speak aloud while writing, to describe what they were thinking.
Through a painstaking analysis of these ‘think aloud protocols’ they built up a
model of the writing process that has inspired a generation of writing researchers.
An important contribution of Hayes and Flower was to study writing as it happens.

During the 1980s researchers found new ways to investigate the processes of
writing, through analyses of pauses, directed recall (where writers are probed
about a writing assignment they have just completed) and collaborative
assignments where the writers are observed as they work together. They have
built up an account of how we write that describes in detail the main component
processes of writing: planning, idea and text generation and revision. This can
explain how writers adopt different strategies according to their inclinations and
needs. It offers a plausible explanation for problems such as writer’s block. And
it provides valuable help for teachers and students of writing. The model of
writing as problem solving is one important foundation of this book.

But for all its successes, writing as problem solving is just another metaphor. It
has borrowed from the language of cognitive psychology, so that some writing
researchers talk not about ‘exquisite impressions’ and ‘innermost feeling’, but
about the ‘central executive’, ‘goals’ and ‘memory probes’. They show diagrams
of the writing process in terms of arrows shunting information between boxes
marked ‘long-term memory’, ‘working memory’, ‘cognitive processes’ and
‘motivation/ affect’. This has the effect of depersonalising the writing process, of
making it appear as a self-contained mechanism, within but separate to the
person who performs it.

More recently, writing has been analysed as a social and cultural activity. A
writer is a member of a community of practice, sharing ideas and techniques
with other writers. How we write is shaped by the world in which we live, with
cultural differences affecting not just the language we use but also the assumptions
we have about how the written text will be understood and used. The study of
writing is itself influenced by culture, with some researchers concentrating on
the teaching of writing within a multi-cultural society and others concerned
more with writing as a professional and business activity.
This book does not reject these models of writing, but aims to incorporate them into a general account, by considering the writer as a creative thinker and a designer of text within a world of social influences and cultural differences. It attempts to resolve some of the paradoxes that face us when we try to understand how we write, such as:

- writing is a demanding mental activity, yet some people appear to write without great effort;
- most writing involves deliberate planning, but it also makes use of chance discovery;
- writing is analytic, requiring evaluation and problem solving, yet it is also a synthetic, productive process;
- a writer needs to work within the constraints of grammar, style and topic, but creative writing involves the breaking of constraint;
- writing is primarily a mental activity, but it relies on physical tools and resources from pens and paper to word processors;
- writing is a solitary task, but a writer is immersed in a world of social and cultural influences.

The book is organised around an account of writing as creative design which I shall sketch out in brief here.

An episode of writing starts not with a single idea or intention, but with a set of external and internal constraints. These are some combination of a given task or assignment (such as the title for a college essay), a collection of resources (for example tables of data about a company’s performance that need to be pulled together into a business report), the physical and social setting in which the writer is working (such as in front of a word processor in a newspaper office, or holding a pen and staring at a blank sheet of paper in a classroom), and aspects of the writer’s knowledge and experience including knowledge of language and of the writing topic.

Writing is, necessarily, constrained. Without constraint there can be no language or structure, just randomness. So, constraints should not be seen as restrictions on writing, but as means of focusing the writer’s attention and channelling mental resources. They are not deterministic, dictating thought in the way that the terrain dictates the path of a ball rolling downhill, nor are they like the rules of writing I listed earlier, guidelines to be picked up or discarded at will. Rather, they are the products of learning, experience and environment working in concert to frame the activity of writing. Constraints on writing can be modified, but to change them a writer needs to understand how they operate, and one skill of a writer lies in applying constraint appropriately. The notion of ‘writing as constraint satisfaction’ is one of the key themes of the book.

Because an episode of writing begins with a set of constraints rather than a single goal or idea, there is no single starting point. The point when a teacher
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hands out an assignment to a student might seem to be the obvious start for classroom writing, but it just adds one more constraint. The student may already have been collecting notes and attending classes that form the resources for the writing episode. Similarly, a poet or novelist may spend many months incubating ideas, taking notes and doing research, before starting a recognisable draft. Preparing mentally and physically are normally called pre-writing activities, but they all form an essential part of the writing process.

Constraints act as the tacit knowledge that prompts a writer into selecting a particular word or phrase. As we draft out a text we have no conscious control over the flow of words. The act of transcribing ideas into words ties up mental resources, so that we think with the writing while we are performing it, but we cannot think about the writing (or about anything else) until we pause.

A simple experiment will confirm this. Try to write an easy piece of prose (such as ‘what I have done since I woke up this morning’) and at the same time recite the nine times table. You will find yourself alternating between writing and reciting; it is not possible to do both at once. Nor is it possible simultaneously to write and think about the text’s structure. The only conscious action you can perform while producing text (apart from speaking it aloud) is to stop. It follows, therefore, that a writer in the act has two options: to be carried along by the flow of words, perhaps in some unplanned direction, or to alternate between reflection and writing. Most writers are unable to sustain prolonged creative text production (although, as we shall see later, it appears that a few prolific writers can do so), and so, in the words of Frank Smith, when we write we ‘weave in and out of awareness’.

Figure 1.1 shows the cycle of engagement and reflection that forms the cognitive engine of writing. An engaged writer is devoting full mental resources to transforming a chain of associated ideas into written text. At some point the writer will stop and bring the current state of the task into conscious attention, as a mental representation to be explored and transformed.
Often this transition comes about because of a breakdown in the flow of ideas into words. It might be due to some outside interruption, a noise or reaching the end of a sheet of paper, or it might be because the mental process falters: the ideas fail to materialise or the words stop in mid-sentence. The result is a period of reflection.

Reflection is an amalgam of mental processes that interact with engaged writing to form the essential activity of composing text. It consists of ‘sitting back’ and reviewing all or part of the written material, conjuring up memories, forming and transforming ideas, and specifying what new material to create and how to organise it.

At the most general level, the differences between individual writers can be described in terms of where the writer chooses to begin the cycle of engagement and reflection (whether the writer starts with a period of reflection and planning, or with a session of engaged writing) and how it progresses. Each of the core activities—contemplate, specify, generate, interpret—can be carried out in different ways and writers can learn techniques (such as brainstorming and freewriting) to support and extend them.

This is a rather mechanistic account of the writing process. It doesn’t capture that agony of waiting for words that refuse to flow, or the delight of conjuring up an unexpected, novel idea. My account of the writing process needs to address the ways by which we create original meaning. How can we summon up a novel idea while writing, seemingly out of nowhere? How does a writer generate original phrases to express well-worn concepts? How have great writers been able to turn a broad topic (such as ‘pride and prejudice’ or ‘the origin of species’) into a creative masterpiece?

Fortunately, there is no need to develop a separate theory of creativity in writing. There is much overlap between creativity as part of writing and creative thinking in other areas such as science or music. The underlying mechanisms of creativity—such as daydreaming, forming analogies, mapping and transforming concepts and finding primary generators (key ideas that can drive a generative act)—do not rely on language (although they may involve it) nor are they unique to writing. There have been some recent, and convincing, attempts to explain creativity in psychological terms. Chapter Three shows how these can be applied to creative writing.

For much everyday writing, the account I have sketched out so far is sufficient (though far from complete as yet). A writer generates ideas, creates plans, drafts a text and reviews the work, in a cycle of engagement and reflection. But texts longer than a couple of paragraphs generally conform to an overall structure, a *macrostructure*, that frames the style and content of the text and organises the expectations of the reader. In general, we expect a novel to establish a scene, introduce characters, pose and resolve problems and reach a resolution. A typical research paper needs to be written to a tight overall
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structure (see Figure 1.2),\(^6\) with prescribed sections. Within each section the structure has both an internal coherence and links to other parts of the document (for example, some of the points raised in the Discussion section should refer back to statements made in the Introduction).

A macro-structure is just another kind of constraint but one that operates at a global level. Writing within a macro-structure is a different kind of activity to recording a chain of associated ideas. Some expert writers have learned the skill of writing to their own familiar macro-structure so well that they can do it largely without deliberation, fitting the words over a well-established framework. But although most people know the structure of a ‘thank you’ letter, few people can turn out a school essay, a short story, a business report or a technical manual without preparing the structure in advance.

We need to create an explicit framework, at least in part, for each piece of writing. Because of the limitations of short-term memory, we cannot hold both

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Title

Abstract

Introduction

The main purpose of the Introduction is to provide the rationale for the paper, moving from general discussion of the topic to the particular question or hypotheses being investigated. A secondary purpose is to attract interest in the topic—and hence readers.

Methods

The Methods section describes, in various degrees of detail, methodology, materials and procedures.

Results

In the Results section, the findings are described, accompanied by variable amounts of commentary.

Discussion

The Discussion section offers an increasingly generalised account of what has been learned in the study. This is usually done through a series of ‘points’, at least some of which refer back to statements made in the Introduction.

Acknowledgements

References

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Figure 1.2 Macro-structure for a prototypical research paper
Source: Swales and Feak, 1994
the macro-structure and the emerging text in mind and ensure that both are kept
in harmony. Thus, writers have to rely on a variety of means—such as notes, lists,
outlines, ‘mind maps’ and rough drafts—to extend thinking, planning and revising
outside their heads. These external representations capture some aspect of thinking
in a form that can be stored, viewed, considered and manipulated. Once they
have been set down on paper, or some other medium such as a computer screen,
then external representations become both extensions of thinking and objects in
their own right, that can be stored, communicated and manipulated. External
representations are the modelling clay of writing. A writer is not only a creative
thinker and problem solver, but also a designer.

To view writing as a design activity is a great liberation. Writing can be compared
to other creative design activities such as architecture and graphic design. Solving
problems is one aspect of this broader process. Activities such as sketching and
doodling are not distractions from the task of writing, but an integral part of it. A
writer need no longer be portrayed as a solitary thinker grappling with ideas, but
as a member of a design team situated in a rich environment of colleagues,
resources and design tools. Writing as design leads us towards new forms of
authoring, such as multimedia design on computer, where text is woven into a
rich interaction of form and function.

Even this rough sketch of how we write is enough to resolve the apparent
contradictions given at the start of this chapter.

- **Writing is a demanding mental activity, yet some people appear to write
  without great effort.** Writing involves both engagement and reflection. An
  engaged writer who has created appropriate constraints can be carried along
  by the flow of mental association, without deliberative effort.

- **Most writing involves deliberate planning, but it also makes use of chance
discovery.** Engaged writing produces texts that become the source material
to inspire contemplation and constrain deliberate planning.

- **Writing is analytic, requiring evaluation and problem solving, yet it is also a
  synthetic, productive process.** Analysis and synthesis are not in opposition,
  but form part of the productive cycle of text design.

- **A writer needs to work within the constraints of grammar, style and topic,
  but creative writing involves the breaking of constraint.** Constraints serve a
dual purpose. They act as a tacit frame for mental activities, but an
experienced writer is also able to represent constraints as explicit structures,
either mental or external, to be explored and transformed. These
transformations break out of the original framework, and in so doing create
a new (and perhaps more productive or original) set of constraints.

- **Writing is primarily a mental activity, but it relies on physical tools and resources
  from pens and paper to word processors.** It is not possible to write a long
piece entirely in the head and so a writer needs to develop macrostructures
and create drafts in some external form. Viewing writing as design emphasises
the rich interactions between the mind and the external world.
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- Writing is a solitary task, but a writer is immersed in a world of social and cultural influences. Writing is both solitary and collaborative, in that a writer often works alone, but with a language that has evolved in society, drawing on the ideas and texts of others. Writing as design is interpretive—the writer creates new meanings out of the particular set of resources and skills that form the context of writing. These give each writer and each text a distinctive personal style.

The remainder of the book fills out the account of writing as creative design. It addresses further questions such as: How do children develop the ability to write creatively? What are the individual differences between writers? How do the writing processes of skilled and unskilled writers differ? What can writers learn from other areas of design? How does a writer fit into the wider culture of textual and visual design?

Chapter Two looks at children’s development of writing abilities and how children gain a mastery over one of the most difficult mental activities. In Chapter Three we explore theories of creativity and show how these can be used to understand the mystery of creative writing. Chapter Four introduces writing as design, by studying how designers think and showing how writers can learn techniques from designers. Chapters Five, Six, and Seven consider writing in detail through the activities of planning, drafting and revising. Chapter Eight focuses on the individual writer and considers the approaches, strategies, techniques and habits that make each writer different. Chapter Nine looks at the visual space a writer creates, and at writing as visual design. Chapter Ten views the writer within a world of social influences and cultural differences. Chapter Eleven discusses the methods and practices of collaborative writing. The final chapter speculates on the future of writing, such as on-line conferencing and text virtual reality, with writing becoming part of a global process of multimedia design and interactive communication.

The book draws from a variety of sources, including experiments with writers, text linguistics, the psychology of cognitive development, and observations of writing in context. Although these provide a foundation, I shall try to cut down on the more technical language and present the account in a direct and straightforward way. Inevitably, this means I skate over much of the theory and tend to choose arguments that support the ‘big picture’ rather than detailing the opposing views and supporting evidence.

I deliberately do not make a distinction between literary composition and humdrum scribbling. Instead I shall argue that the general mental processes are the same in both cases. The difference lies in how the writer is able to harness experience, imagery, thought and language to creative effect, and for what purpose.

I have also not divided the book according to genres (such as the novel, the textbook, the student essay) nor by the status of the writer (learner, student, everyday writer, professional writer). These divisions are secondary to the
continuous process of becoming a writer. People are not born great writers, nor is there a magic transformation from novice writer to acclaimed author. Writing is a craft that needs to be learned and can lead on to particular specialisms such as academic, business or novel writing. Those who develop the skills of creative writing do so gradually, by reflecting on their experiences of reading and writing and by learning the styles, strategies and techniques of written communication. Even the most talented writers need many years of practice to become experts.

The purpose of this book is to describe how we write, rather than to teach composition. But an important part of developing the skill of writing lies in being able to understand the way we write, and how to alter it to suit the different audiences and demands of writing. When we learn to write we become locked into a particular set of strategies for coping with the mental demands of composition. Our own way of writing becomes so familiar that it is difficult to appreciate how anyone could write otherwise. It is only by understanding how other people write, and the writing process in general, that we can learn to control and extend our own writing abilities.