1 Introduction

1.1 The Importance of Writing

Writing is one of the most significant cultural accomplishments of human beings. It allows us to record and convey information and stories beyond the immediate moment. When we speak, we can only inform those in our immediate vicinity. Writing allows us to communicate at a distance, either at a distant place or at a distant time. Nowadays, we can record and send a spoken message with audio or video recordings, but these require special equipment at both ends. For writing, we need only a piece of paper and a pencil.

With writing, we can supplement our own memory. We can record much longer texts than we could ever hope to memorize. The written text is also less fallible than human memory. Many of us have made a great deal of effort to memorize even a fairly short poem. Just think of trying to memorize an entire book! or several!

With written records and manuals, we can create a much more complex society than would otherwise be possible. By keeping records of weather observations, meteorologists are able to discern patterns, allowing them to predict the coming weather. A manual allows an appliance to be repaired. A map allows us to navigate unfamiliar areas. An encyclopædia allows students to learn the history of distant places, peoples, and events.

Writing creates not only a more complicated society, but as some have argued, a more just society. We frequently hear that 'the control of information is power'. When information can be readily written down, printed, and distributed, there is less chance for it to be manipulated by a few people. During the 1930s, the Canadian government distributed *Hansard*, the record of parliamentary proceedings, free to those requesting a subscription. Many a politician regretted being met in a small rural community with a farmer pulling out a copy and saying, 'But it says here that on the thirteenth of May you stood up in Parliament and said . . .'. However, writing itself is not pure; it allows us to publish lies, to mislead, to libel, to cover up, to put a spin on the truth.

We must also be careful not to equate a 'literate society' with a 'good society'. For most of human history, most people have been illiterate. Even today, illiterate people around the world lead productive and satisfying lives. Who in the western world has not at some time identified with Paul Gauguin, who left literate France for Tahiti, where literacy was of less importance? For many people today, even though they are literate, reading and writing play only a small role in their day-to-day lives.

Before we go on, we should also point out that spoken language is clearly primary for humans and written language is secondary. All languages are spoken; only some are written. All people learn to speak as children. Some later learn to write; others do not. The acquisition of language and speech is normal for children and happens automatically, like learning to walk. Writing must always be consciously learned.

1.2   Definition of Writing

In English, the term *writing* is used in various senses. It can mean 'penmanship': *Mary's writing is much better now that she is in Grade Two*. Writing can refer to the content or literary style: *Mary's writing is much better after her year in journalism school*. Finally, writing can refer to writing systems: *Arabic writing goes from right to left*. In this book, we will normally use writing in the last sense.

We can define **writing** as the use of graphic marks to represent specific linguistic utterances. The purpose of a definition is to distinguish a term from other things. To understand what writing is, it is helpful to investigate some similar things which are not writing according to our definition.

Writing is not language. **Language** is a complex system residing in our brain which allows us to produce and interpret utterances. Writing involves making an utterance visible. Our cultural tradition does not make this distinction clearly. We sometimes hear statements such as *Hebrew has no vowels*; this statement is roughly true for the Hebrew writing system, but it is definitely not true for the Hebrew language. Readers should constantly check that they are not confusing language and writing.

Although writing is not language, writing does represent language, and in our definition, only language. Humans engage in many non-linguistic types of communication. These other types of communication may at times be visual, but they are not writing. For example, a painting may represent Noah entering the ark with various animals. Such a painting may communicate many things, such as memory of the story, emotions, æsthetic feelings, information about the ark or the animals, or about Noah, but we would not consider the picture to be writing because it does not represent a specific utterance. The picture might evoke various utterances: e.g., *Noah entered the ark*, *Noah brought the animals on board*, or *The animals accompanied the old man as he set sail*, or even German *Noah betrat die Arche mit den Tieren*. We cannot say that any one of these utterances is specifically the one communicated by the picture. On the other hand, if we see the written sentence *Noah entered the ark*, we recognize it as writing since it is the visible manifestation of a specific linguistic utterance, one which I would pronounce as /ˌnowə ˌɛntəɹd ði ˈɑɹk/. (See Appendix C for an explanation of phonetic symbols.) From this discussion, we can see that writing is related to language, not to ideas in general.

An example somewhat closer to writing is known as the Cheyenne Indian Letter (figure 1.1). Cheyenne is an Algonquian language spoken in the United States. Mallery (1893) cites a nineteenth-century document which purports to be a message from a man, Turtle-Following-His-Wife, to his son, Little Man, telling his son to return home and enclosing $53 for the cost of the trip. According to Mallery, the message
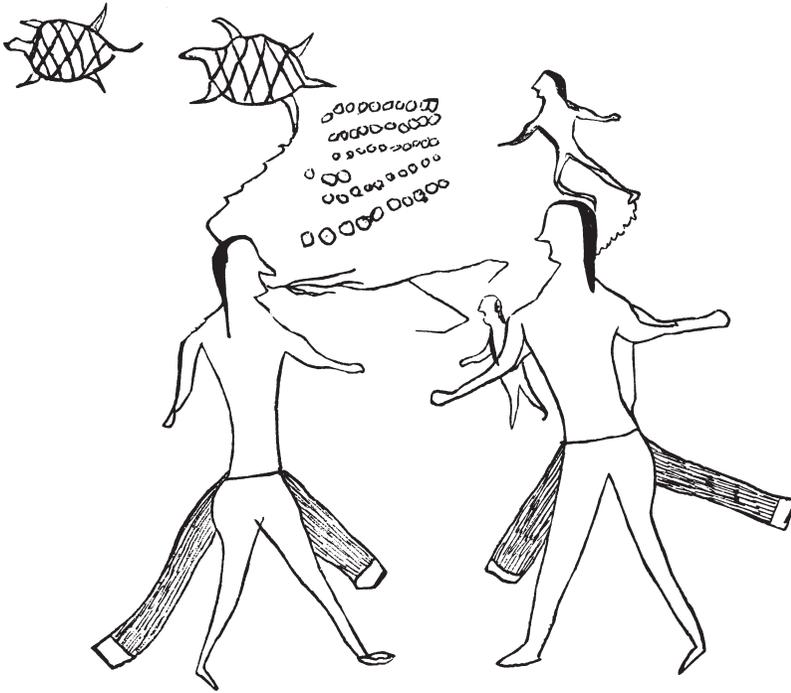
Figure 1.1   The Cheyenne Indian letter

was understood. Our initial reaction is likely skeptical, as we think that we ourselves would probably not have been successful at deciphering the message. Possibly it was sent with some prior arrangements. Crucially, a semantic interpretation does not seem to proceed systematically from the picture according to any definable system. We would not know how to interpret it reliably, and there is no system which would allow us to formulate a reply or other message. Even if our skepticism about the ease of interpretation is unfounded, the document still does not qualify as writing under our definition since it does not correspond to a specific linguistic utterance; rather, we expect that several different Cheyenne utterances could be accepted as correct 'readings' of the message, as with our picture of Noah.

A crucial element missing in the Cheyenne Indian Letter is a systematic structure. The primary focus of this book is expressed in its title *Writing Systems*. Writing is systematic in two ways: it has a systematic relationship to language, and it has a systematic internal organization of its own. The Cheyenne letter is not systematic in either sense: there is no set of conventions linking the elements in the drawing to the Cheyenne language, nor are there conventions which structure the elements of the drawing with each other. We can refer to non-linguistic graphic communication, such as the Cheyenne Indian Letter, by the term **picture writing**.

Now let's look at the history of the word *writing*. Knowing about the etymology of a word does not really help us understand its meaning better, but the history is often interesting. The word *write* comes from an Indo-European root **wrīd-* 'tear, scratch',

perhaps related to Greek *rhīnē* 'file, rasp'; presumably, early Indo-European writing was seen as scratching marks on a surface. From this Indo-European form, a Proto-Germanic form **wrītanan* 'tear, scratch' developed, producing forms such as Swedish *rita* 'draw, scratch', German *reißen* 'tear' and *ritzen* 'scratch'. The oldest English form *wrītan*, attested in *Beowulf*, originally meant 'score, draw', and somewhat later 'write'.

Other related words include *scribe* and *script*, which are borrowed respectively from Latin *scrība* 'secretary, scribe' and *scrīptum* 'something written', both derived from the Latin verb *scrībere* 'write'. At first *script* meant a piece of writing; its use for a system of written marks is quite late, probably first occurring in the late nineteenth century. *Letter* is borrowed from the French *lettre* from Latin *lītera* 'letter of the alphabet'. In the plural, Latin *līterae* meant 'a piece of writing, epistle, literature'. *Graph* is from Greek *gráphein* 'scratch, write'.

1.3   Aspects of Writing

This book examines four important aspects of writing:

- the creation and history of writing
- the relationship of writing and language
- the internal structure of writing systems
- the sociolinguistics of writing

1.3.1   *Creation and history of writing*

Writing can be created in three basic ways. It can be invented as a completely new phenomenon. More frequently, writing is borrowed from one language and applied to a new language. Finally, a new script can be developed, not as a completely new phenomenon, but as a new form of writing.

Rarely has writing been invented from scratch, that is, without knowledge of any other existing writing; but it has happened on at least three occasions. We know that the earliest **invention of writing** was about 5000 years ago by the Sumerians in Mesopotamia. Some 1500 years later, the Chinese again invented writing. The last certain invention of writing was over 2000 years ago by the Maya in Meso-America. Some scholars have claimed that the Egyptians and the people of the Indus Valley also invented writing, but these claims are controversial.

Although the invention of writing is rare, the **borrowing of a writing system** from one culture to another has been extremely common. Almost all the writing systems in use today, except Chinese, involve some sort of borrowing. In Asia, several neighboring countries borrowed writing from China. Early Mesopotamian writing likely inspired the Egyptians to develop a writing system for their language. The Semitic writing system arose under the influence of Egyptian. The Greeks borrowed the Semitic system. The Greek alphabet was borrowed by the Etruscans in Italy, and their alphabet was in turn borrowed by the Romans for writing Latin. The Roman alphabet has spread widely and has been used to write hundreds of languages

around the world. Almost all writing systems in use today stem ultimately from either the Chinese or the Semitic writing systems.

Rather rarely, we have the **creation of a new writing system**. This type of creation involves an anthropological notion known as **stimulus diffusion**; with stimulus diffusion, something is borrowed from one culture into another, but only the general idea, not all the details. In the case of a new writing system, the creator is aware of the notion of writing and creates a new type of writing. What is new is the particular writing system, not the notion of writing itself; the Cherokee, Cree, Pahawh Hmong, and Bliss writing systems are examples of this sort of development. These situations are different from that of the Sumerians, the Chinese, and the Maya, who invented writing with no prior model.

In connection with his novels and stories, J. R. R. Tolkien invented a number of scripts, attributing them to various of the peoples in his stories. Tolkien was a Celtic and Old Norse scholar, and the shapes of the symbols have much in common with the mediæval scripts of Ireland and Scandinavia.

1.3.2 *Relationship of writing to language*

An extremely interesting question is how writing and language are related. In Finnish, for example, there is an almost perfect one-to-one **relationship** between written symbols (letters of the Roman alphabet) and the phonemes of Finnish. In Chinese, by contrast, there is a fairly consistent relationship between written symbols (characters) and the morphemes of Chinese. (Note: for an explanation of linguistic terms such as *morpheme* or *phoneme*, see Appendix A.)

Russian and Belorusian are closely related Slavic languages, both written with the Cyrillic alphabet. Russian writing corresponds to the morphophonemic level of the language, overlooking certain predictable phonological variation, whereas Belorusian writing corresponds to the phonemic level of the language, overtly specifying the type of variation that Russian writing overlooks.

In Hebrew, only consonants are generally written; the reader is expected to know the language well enough to supply the missing vowels. Special symbols do exist to indicate vowels, but they are used mostly in materials for children and learners of Hebrew.

Some languages are written with a mixture of systems. Japanese, for example, has different kinds of writing; it uses characters borrowed from Chinese, as well as two further types of writing known as *kana*, in which each symbol represents a mora (i.e. a consonant–vowel sequence or a consonant at the end of a syllable). Japanese writing is normally a mixture of these systems. Some words are normally written with characters, some with *kana*, and many with a mixture of characters and *kana*. The writer must know which type of symbol is appropriate for a given word.

In English, we use the Roman alphabet, but its relationship to the phonemes of English is not simple. For example, the vowel /i/ is written variously <ee, ea, ie, ei, y, i> as in *meet*, *meat*, *siege*, *conceive*, *city*, *spaghetti*. By the same token, the written sequence <ough> can be pronounced quite differently as in the words *tough*, *cough*, *though*, and *through*. Clearly English spelling is related to phonology, but the relationship is complex and strongly shaped by lexical and morphemic considerations.

From these examples, we can see that the relationship between language and writing is not necessarily simple nor consistent. The relationship of the language and writing system of Finnish is unusually simple, but the corresponding relationship for Japanese is extremely complex. Although Finnish and English both use the same Roman alphabet, they do so in different ways; the spelling rules of Finnish and English are quite different. Similarly, Japanese and Chinese both use Chinese characters in their writing, but the rules for using characters to write the two languages are quite different.

In our study of writing systems, we might assume that there is a simple, one-to-one relationship between written symbols and language: for example, that a writing system has a distinct symbol for each phoneme, and that these symbols are used to write utterances. In such a situation, an automatic conversion would, in principle, be possible between writing and language. Anyone who has learned to write English, however, is more than aware that this situation does not hold for English. We need only consider such pairs as *one* and *won* with exactly the same pronunciation and very different spellings to confirm this. There are, to be sure, some writing systems which are fairly regular, but none is perfect. Varying degrees of complexity are the norm. In the course of this book, we will investigate many types of complex relationships between writing and language. In the next chapter, we will develop some terminology which will help us to describe some of this complexity. In the final chapter, we will examine this issue generally and develop a taxonomic scheme for writing systems which takes varying kinds of complexity into account.

1.3.3 Internal structure of writing

Writing systems have an **internal structure** independent of the language being written. From English, we are used to writing starting at the top left corner of the page, proceeding from left to right, with each row placed under the previous row. But this arrangement is by no means universal; for example, the Arabic script is written in rows like English, but each line is written right to left, starting at the top right corner of the page. Arabic is also written cursively, so that most letters within a word are connected to each other; as a result, letters have different shapes depending on how they are attached to other letters. This internal structure of the Arabic script has been maintained even when it has been used to write other languages, such as Persian or Urdu.

In English, a very short public sign is sometimes written vertically with each letter under the preceding one. This type of writing is typically done in upper-case letters, rarely in lower-case.

Chinese writing has a different internal structure. Traditionally, it has been written in columns, from top to bottom, starting at the top right corner of the page; nowadays it is more often written in rows from left to right like English. Chinese characters may consist of only one stroke or of a large number; no matter how many strokes it has, each character is written so as to fill out an imaginary square with a fixed size; thus, each character on a page appears to be about the same size.

In Korean *hankul*, the individual letters are combined in various predictable ways into syllable-sized blocks. These blocks have the same size so that Korean writing is visually rather like Chinese with a set of evenly spaced symbols.

Clay cuneiform tablets used in ancient Mesopotamia were shaped with one side flat and the other slightly convex. Writing began on the flat side; thus the reader could easily determine which side to read first.

Apart from the general internal structure of a writing system, different types of texts sometimes have specific rules of their own. For example, on the title page of a book, the writing in the largest size of type is usually the title of the book. Writing in a smaller size of type typically indicates the author or editor. Writing at the bottom of the title page is related to the publication of the book, typically the publisher, city, and often date of publication. These matters are not without exceptions, but it would be odd to find the publisher's name in the middle of the page and the title at the bottom.

The rules relating language and writing tell us which symbols must be written to express a given utterance, but the rules of the internal structure of the writing system tell us how these symbols are actually to be written down.

1.3.4   Sociolinguistics of writing

Writing is done in a social context. For example, Scots Gaelic is a Celtic language spoken in northwestern Scotland; the language has been written for many centuries. Today, Scots Gaelic speakers may on occasion write something in Gaelic, but for most speakers of the language, writing is ordinarily done in the English language. Virtually all Scots Gaelic speakers today are fluent in English; because of the social history of the highland and island areas of Scotland, where Scots Gaelic is spoken, writing is usually associated with English.

Various spoken dialects are found throughout the Arabic-speaking area, but writing is done in a different dialect known as Standard Arabic. Standard Arabic must be learned in school and generally is not mutually intelligible with spoken dialects. Although it is quite possible to write down a text in a spoken Arabic dialect, this is rarely done. By the same token, although Standard Arabic may be read aloud, it is rare to speak the written dialect extemporaneously for any length of time.

Literacy, or the ability to read and write, varies a great deal in different societies. In technological societies, writing is so much a part of life that being illiterate is considered a serious handicap. In many parts of the world, however, literacy plays little part in everyday life.

At times, literacy has had a special significance. For example, mediæval England had special ecclesiastical courts for clergy. In the early Middle Ages, literacy was almost entirely limited to priests and monks, and thus reading was a simple test to distinguish those to be tried in the ecclesiastical courts from those to be tried in the civil courts. In time, any literate person was legally deemed to be a cleric and could claim this so-called 'benefit of clergy' to be tried in the ecclesiastical courts. This distinction had significant consequences for the offender as the ecclesiastical courts tended to be more lenient; for example, they had no capital punishment. Thus, by being literate one could avoid execution – a clear sociolinguistic benefit.

1.4   Further Reading

At the end of each chapter, there is a section labelled 'Further reading' giving some advice on exploring the subject matter of that chapter more fully. In this introductory chapter, this section mentions several general sources on writing systems. Coulmas (1989), DeFrancis (1989), Hooker (1990), all provide introductions to the material; Hooker is the easiest, Coulmas has the best coverage, DeFrancis is somewhat uneven, but excellent on Chinese. Diringer (1962), Gaur (1984), Jensen (1970), Fischer (2001) focus on the history of writing. Senner (1989) is an excellent collection of articles on the origins of many scripts. Daniels and Bright (1996) is an outstanding reference tool with chapters on most writing systems; Coulmas (1996) is also very reliable, and organized by topic. Sampson (1985) has a linguistic approach, but discusses only a limited number of writing systems. For many years, Gelb (1963) was the only book on the structure of writing systems; his data are still good, but many of Gelb's theories are now considered untenable.

1.5   Terms

At the end of each chapter, there is a section listing technical terms used in the chapter. Readers may want to use these lists for review purposes. All the terms in the book are gathered and defined in Appendix D.

borrowing of a writing system
creation of a writing system
internal structure of writing
invention of writing
language
literacy
picture writing
relationship of language and writing
stimulus diffusion
writing

1.6   Exercises

1   Can you find signs in English that are not written horizontally? What is the likelihood that the letters in a vertical sign are upper-case? How long a text would you like to read in vertical writing?
2   Do you know anyone with dyslexia? What problems do they have in reading? How do they cope with this?