'Crisp, taut, and as clear as a bell . . . a fascinating story with many a beguiling subplot along the way'
New Scientist

JOHN MAN

ALPHA BETA

HOW OUR ALPHABET SHAPED THE MODERN WORLD

ALPHA BETA

HOW OUR ALPHABET SHAPED THE WESTERN WORLD

John Man

BANTAM BOOKS

LONDON • TORONTO • SYDNEY • AUCKLAND • JOHANNESBURG

TRANSWORLD PUBLISHERS
61–63 Uxbridge Road, London W5 5SA
A Random House Group Company
www.rbooks.co.uk

ALPHA BETA
A BANTAM BOOK: 9780553819656

First published in Great Britain
in 2000 by Headline Book Publishing
Bantam edition published 2009

Map by Martin Collins

This book is a work of non-fiction.

A CIP catalogue record for this book
is available from the British Library.

Addresses for Random House Group Ltd companies outside the UK
can be found at: www.randomhouse.co.uk
The Random House Group Ltd Reg. No. 954009

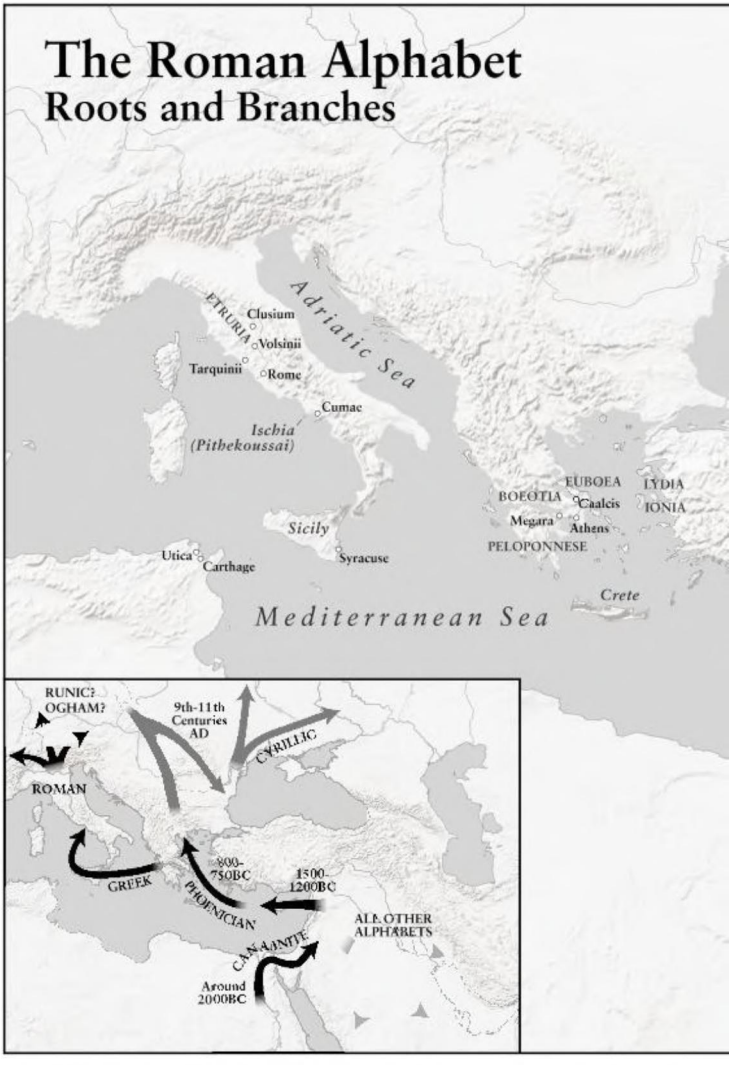
The Random House Group Limited supports The Forest Stewardship Council (FSC), the leading international forest certification organisation. All our titles that are printed on Greenpeace approved FSC certified paper carry the FSC logo. Our paper procurement policy can be found at
www.rbooks.co.uk/environment

Typeset in 11/16pt Sabon by Falcon Oast Graphic Art Ltd.
Printed in the UK by CPI Cox & Wyman, Reading, RG1 8EX.

2 4 6 8 10 9 7 5 3 1

CONTENTS

The Roman Alphabet
Roots and Branches



FOREWORD

This book is about one of humanity's greatest ideas – the idea of alphabet – and its most widespread form: the system of letters you are now reading. Three features of the idea stand out: its uniqueness, its simplicity and its adaptability. From the alphabet's earliest manifestation 4,000 years ago, all other alphabets take their cue; and all reflect the idea's underlying simplicity.

This is not the simplicity of perfect design. The strength of the alphabet as an idea lies in its practical imperfection. Though it fits no language to perfection, it can, with some pushing and shoving, be adapted to all languages. Like our own big-brained species, which can be outrun, outflown and outswum, but not out-thought,

by other species, the alphabet is a generalist. In software terms, its success lies in its 'fuzziness'. But where did this idea of alphabet spring from? How and where did it spread as it matured into the Roman-letter system that is now the world's most familiar script? How did we discover the answer to these questions?

It is a good time to examine such things, because the roots of the alphabet are still emerging. It seems increasingly certain that this revolutionary, one-off concept arose in Egypt, about 2000 BC. These discoveries will remain controversial until more evidence is found, interpreted and accepted, but one thing you can bet on: as archaeology becomes ever more effective, astonishing advances are still to be made. One day, perhaps, some cache of scrolls or inscriptions will reveal the genii – perhaps even the individual genius – who mined the first treasure-trove of letters from Egyptian hieroglyphs.

I focus on the idea and its transmission from culture to culture, from Egypt, to Rome, to us. It seems to me that I had little option in this choice of theme, for otherwise there would be no end. A full history of the alphabet would be a library, with specialist sections on scores of alphabetical systems and their cultures, on the impact of literacy down the centuries, on the psychology of reading, the techniques of writing, the strange worlds of magi who turned the ABC into 'abracadabra'. Each letter has its own history. There is

little in this book about technical advances or grand historical processes – the papyrus trade, printing, imperialism, the Internet. These are the tides that carry the Western alphabet across the world, but they have little impact on the Roman alphabetical code, let alone the underlying idea that unites alphabetical scripts from Abaza to Zulu – that all human speech can be symbolized by two or three dozen meaningless marks.

INTRODUCTION:

OF GIANTS AND GENIUS

As a child, I went to an old-fashioned little boarding school in Hastings where the headmaster was a one-eyed giant. He was 6' 4" and weighed 280 pounds and he had a glass eye. I have no idea how he lost the real one. The glass eye had the disconcerting habit of oozing liquid, so that in mid-tirade, on the verge of applying the cane, he would produce a handkerchief and wipe away a crocodile tear. It was rumoured, though I never saw it for myself, that he could take his eye out, polish it and replace it.

So when I first heard of the Cyclops, the one-eyed ogre in the *Odyssey*, I knew exactly what Odysseus was up against. I see myself as an eleven-year-old in grey flannel shorts, tie with horizontal yellow-and-black

stripes, knuckles raw with some winter rash, sitting at one of those old wooden desks with a sloping, lift-up top, on which someone has carved his initials, 'CP'. Kennedy's *Latin Primer*, long since turned into '*Eating' Primer* by a schoolboy scribble, lies in front of me, unopened. Mr Marshall is an enlightened teacher and, although this is double Latin, it being Wednesday afternoon, he has chosen, as usual, to abandon Latin for the *Odyssey*. This is not a Greek lesson exactly – the language is only for the scholarship boys – but a reading of the newish translation by E. V. Rieu. Its images, vivid as film, transport me . . .

. . . to the cave where Odysseus and his men have been trapped by the shambling Cyclops. Illustrations show him with a single eye in the middle of his forehead, but I see him as our headmaster, minus his glass eye, dressed in skins instead of his brown pin-striped suit. The Cyclops (meaning 'round-eyed') blocks the cave mouth with a rock that twenty-two four-wheeled wagons could not have carried. He seizes two of the Greeks, dashes their heads against the floor, splatters the rocks with their brains, tears them limb from limb, and crunches them up, ravenous as a lion with a new kill. Odysseus watches, stricken. I had an inkling of how he felt. Once, guilty of talking after lights out, I had stood in line outside the headmaster's study, hearing the six-fold thwacks on friend after friend. I knew

the dread of approaching doom. Now here was Homer, showing me what it was like to be cunning, brave and strong enough to save friends from giants. Odysseus offers wine and then, when the Cyclops falls into a drunken stupor, prepares a stave, huge as the mast of a twenty-oared ship, heats it in the fire and, with five of his men, rams it into the Cyclops' single eye. 'I used my weight from above to twist it home, like a man boring a ship's timber with a drill . . . In much the same way we handled our pole with its red-hot point and twisted it in his eye till the blood boiled around the burning wood. The fiery smoke of the blazing eyeball singed his lids and brow all round, and the very roots of his eye crackled in the heat. I was reminded of the loud hiss that comes from a great axe or adze when a smith plunges it into cold water – to temper it and give strength to the iron. That is how the Cyclops eye hissed around that olive stake.' I glance round, exchange grimaces, and feel the glow of a shared response. Yes, we all love every gory, vengeful detail.

From those vivid readings, from the fact that Mr Marshall made time for them, from their emotional impact, I received a clear message: this story – speaking so directly from so remote a time – mattered. Not that I knew why. I had no idea that I was being given an introduction to the roots of a culture in which my own was rooted. In the introduction to his own translation,

T. E. Lawrence, a classical scholar as well as co-liberator of Arabia, called the *Odyssey* 'the oldest book worth reading for its story and the first novel of Europe'. It was the start of a line leading another three centuries right to the burst of creative energy that made the Athens of the fifth century BC a cornucopia of philosophy, science and literature, pouring out creations whose effects rippled down the centuries and across continents.

The consequences are all around. The fields of study founded by the Greeks or coined from Greek words run from astronomy and biology all the way through the alphabet to xylography and zoology. When looking for their roots, European cultures (except perhaps the Basques) quickly dig up Greeks. So do most white – or even Latino – Americans, Australians and other scattered ex-European lineages. So, in lesser ways, do Muslims, because their scholars were translating Aristotle into Arabic when Europe was still in its post-Roman limbo. To Afghans and Uzbeks, Alexander the Great is a vivid folk memory. Anyone learning a European language or studying the history of anywhere from the Hebrides to the Hindu Kush will come across the Greeks eventually. In language, the Greeks are with us still, as real and as forgotten as a childhood taste. You could probably write a novel using only ordinary nouns and verbs derived from the Greek, certainly a

dissertation, because its root-words so readily form techno-speak, as in: '*Genetics* and *character*: The use of *cybernetics* in *psychological analysis*.' Today's coins have a head on one side and a symbol on the other because that was the way the Greeks did it.

Why this tide of Greekness? Were there special things about ancient Greek genes or society or technology or food or climate, or any combination of these, that created the intellectual bloom? Of the many answers, one intrigues me. It is the suggestion that Homer and his successors had an impact only because their words were recorded in a form that allowed their thoughts to be transferred easily from generation to generation. The Greeks, so this argument runs, would not have been so influential but for the invention that fixed their writings, the invention that they named after its first two signs, alpha and beta – the alphabet.

The alphabet? It is a little hard to know what exactly the 'the' refers to, because there are many so-called alphabets which do not begin with a and b. Ogham, the Old Irish system, began BLF; Germany's medieval script, Runic, started with six letters after which it is named, the futhark ('th' being a single letter). Ethiopic began h-l. Some early 'alphabets' broke down after the first two letters into abjads or abugidas. But despite the

changes, an ideal runs through them all: that the sounds of speech can be captured by a collection of two or three dozen single signs, each of which corresponds to a spoken sound. In fact, as we shall see, this is a vain hope. But the ideal remains, a dream of the perfect written communication. It is this ideal that inspired this book, which examines the emergence of our own alphabet from its Egyptian roots through to the Latinized form which you are reading now. This book takes as its subject the alphabet as a unit, not dealing in depth with the overwhelmingly vast subjects of writing, the technicalities of script or the histories of individual letters.

Many have been convinced that the Greek alphabet was the best of the lot, because (they claim) it was the direct cause of the flowering of Greek genius and all that followed. This suggestion was most forcefully put in the 1970s by the Anglo-American academic, Eric Havelock, the late professor of classics at Yale. The alphabet, he maintained, was one of the great leaps, a stroke of genius which, like the invention of fire or the wheel, ensured that life in the Western world would never be the same again.

As a result, he said, the Greeks were able to turn works of recitation into works of literature. The *Odyssey* and the *Iliad*, which would otherwise have been lost, were the first major works captured for

Mesopotamia). The base-ten numbering system also emerged four times independently: in Babylon, China, India and Central America. Monotheism arose independently in the Old and New World (a generalization I can defend, in a small way, by citing a tribe with which I spent some time in 1979–80, the Waorani of the eastern Ecuadorian jungle; they believed in a single god, Waengongi, from long before the arrival of Europeans). And evolution had an evolution of its own from long before it was formalized by Darwin.

But the alphabet, despite its multifarious forms, was a unique idea, arising only once, spreading across cultures and down centuries. There are many other writing systems, but they are all ideographic or syllabic. Other than the unknown scribes who originated the first tentative form of the alphabet around 2000 BC in Egypt, no culture or person ever independently dreamed up the idea. All those hundred or so who have ever used an alphabetical system either distilled it from a previous system, or inherited or adapted an established alphabet, or heard of the idea, and made up their own on that basis. In Havelock's words, it was a uniquely efficient way of recording human speech, and 'once invented, it supplied the complete answer to a problem, and there has never been a need to reinvent it'.

* * *

greater impact, in the fifteenth century. Transmission of information during this millennium took decades. With the growth of industry in the nineteenth century, decades compressed to years, and then, with air travel, to weeks. Now that cultural evolution has become electronic, information flows worldwide in seconds, and illiteracy is a synonym for backwardness.

The coarsest measure of the explosion in literacy and information is to look at the sheer weight of written and published material. In AD 1500, Europe was turning out about 200,000 volumes per year, while China had been producing about 800,000 a year for centuries: a million books, say 500 tons of paper. At the turn of the millennium, the world produced some *ten billion* books a year – about 50 million tons of paper, for books alone. Now add in newspapers – 8,391 dailies as I write, and rising – and weekly and monthly magazines – 73,000 titles. In all, for communicating, the world produces about 130 million tons of paper a year – 50 pounds per person. In 500 years, when the world's population has risen 13-fold, the literate population has risen 1,000-fold, and reading materials over 250,000 times, almost all the increase in this century. Per person, we consume almost 20,000 times as much reading material as our medieval ancestors. Over 60 per cent of the world's total consumption of written material is in alphabets of one kind or another.

script made a conceptual leap forward. It began to represent syllables.

To understand what this meant demands a leap into a non-literate culture, which I had a chance to do during my brief time with the Waorani in Ecuador. Until recently, they had the rare distinction of being among the fiercest tribes known to anthropologists. Some 40 per cent of all deaths were the result of revenge spearings. Few outsiders survived an encounter. Understandably, they had been an isolated group for centuries, until American missionaries tried to make contact in the late 1950s. All five were speared. But the sister of one and the wife of another, working with a Waorani woman who had fled to the outside, were inspired by the martyrdom to seek lasting contact. Since they were women, and therefore less of a threat, and since they were accompanied by a tribeswoman, they succeeded. Work started on the language, which turned out to be unrelated to any other. It took years. By the time I came along, several missionary-linguists spoke it well, and most of the tribe was living in peace. The point of this story is that to crack the language, the linguists had no help at all in their analysis from the Waorani themselves. Lacking contact with other languages, they had never had any reason to undertake the highly sophisticated business of analysing their own. They had no more idea of their own grammar than

anyone else who has not been taught it. They had no word for 'word', let alone smaller units like syllables.

Linguistic analysis has a long but diffuse history. The oldest dates back to Sumer. The next, a millennium later, is a grammar of Sanskrit by Panini, written in the fifth century BC at the earliest, while Western languages look back to the work of a Greek grammarian, Dionysius Thrax, in the first century BC. It took tens of thousands of years of speaking and a couple of millennia of writing before anyone got around to looking at how we do what any two-year-old can do. If, as seems increasingly likely, language is instinctive, it's hardly surprising that the sounds we make are as hard to analyse as hormones. All we see are the effects.

Language breaks into numerous elements that create and recreate meaning. First in line for analysis are words. We reorder words to show who does what to whom: The dog bit the man, the man bit the dog. Word order involves some of the most basic rules of grammar, which children pick up effortlessly. Take just one 'rule' about never ending sentences with a preposition, and then listen to this bed-time complaint by a six-year-old: *What did you bring that book I don't want to be read out of from up for?* What a wonderful nesting of thoughts, all bracketed by the opening 'what' and the final 'for'. We string words together to make new concepts, a technique which German

is notoriously good at, both in real speech and in fun. I once received a car-tax reminder headed 'Kraftfahrzeugsteuerbescheidverfahren' (Power-travelling-tool-tax-information-proceeding), which almost matches the nonce-word for the assassin of the aunt of a Hottentot chief: *Hottentotten-potentaten-tanten-totenattentäter*. (Incidentally, that single noun, which doesn't really need the hyphens that I've thoughtfully inserted, contains not just a string of words, but many smaller units of meaning, like lots of spurious *-en*'s, weak genitives, in grammatical terms, to which we shall be returning later.) But words themselves are easily broken apart: In *My Fair Lady*, Eliza Doolittle sings 'abso-blooming-lutely still', carefully obeying rules which forbid her to sing 'absolute-blooming-ly still'. Such things happen in all languages. There's a German translation of Lewis Carroll's *Jabberwocky* in which the line 'and stood awhile in thought' could be rendered in a scanning translation as '*er fing zu denken an*' (he set to think out); but the need for a rhyme gives a playful twist: *er an-zu-denken-fing* (he out-to-think-set).

Even a superficial glance is enough to show that words are not fundamental at all. The search for basic units leads quickly to the next element down in size: the syllable. In popular speech, that unit is about as small as you need to go. You spell things out in words of one

syllable, and Macbeth metaphorically divides recorded time into syllables. In poetry, syllables carry rhyme and stress. Members of sub-cultures – children, thieves, soldiers – often play with syllables to create private languages. A well-documented one is 'back slang', in which syllables are reversed and then made pronounceable by adding *-ay*. 'Ackbay angslay' turns out to be quite simple to master, and utterly baffling to the uninitiated: my mother-in-law, Lael Wertenbaker, a reporter with *Time* magazine, used it to avoid Nazi phonetaps when she was based in Berlin in 1940. Common sense suggests that syllables are the atoms of language (though they're not, as we shall see later).

The syllable, then, was a good starting-point for the refinement of Sumerian script. Originally, a picture could merely have suggested its name, which would change with the language, as '2' may be read as 'two', '*deux*', or '*zwei*'. At some point, some forgotten genius seems to have realized that a sign for a simple object symbolized both the object and a sound – its name. The two can be separated. Once the symbol is used to represent sound, the same symbol can be used for that sound whenever it occurs:

'2morrow and 2morrow and 2morrow . . .'

This is a sort of visual pun termed a 'rebus', short for a seventeenth-century Latin tag *non verbis sed rebus*, when meaning is captured 'not by words but by things',

chance in some new environment, where tradition holds no sway.

To summarize these ideas, consider three propositions. Let's call them the three Working Theories of Script Evolution:

1 In a writing system, complexity knows no bounds and imposes none.
2 A writing system will last as long as its culture, unless changed by force.
3 New writing systems emerge only in new, young, ambitious cultures.

It's the third proposition that is of interest to those who seek the roots of our alphabet. If it is true, we should be on the look-out for the cultural equivalent of the tiny fossils that indicate the existence of mammals during the time of dinosaurs. For a century now, archaeologists have sought that shadowy entity, *Alphabeticus originalis*. Now, evidence has emerged to suggest it's been found.

alphabet's epitome, a star among alphabets, a national treasure for Koreans and 'one of the great intellectual achievements of humankind', in the judgement of the British linguist, Geoffrey Sampson. It's a story worth telling, because it shows to what heights the alphabet can be taken, and its limitations.

Since Korea became a unified nation around AD 700, it evolved into a sophisticated and assertive society, though always in the shadow of its big brother, China. Chinese culture, trade, literature and language permeated Korean life. Yet it was not a happy match. Korean society did not mirror Chinese, nor did its language fit easily with Chinese script. The two belong to different language groups: where Chinese builds sentences of small words, Korean adds suffixes to modify roots. For adapting Chinese script, Koreans employed a complex system of transliteration (*idu*) that used some Chinese symbols for their meaning and others that sounded vaguely like Korean. Whichever system was used – Chinese by the upper classes or *idu*, which was supposedly for ordinary people – writing was inefficient for a society proud of its learning and book production. Like China, medieval Korea printed with both woodblock presses and movable wooden type, even metal type: Korea was the first country in the world to use movable metal type, in a work entitled *Prescribed Ritual Texts of the Past and Present*, printed in 1234.

Onyang and the Pepper Waters of Ch'ongju. His worried staff drafted a deferential letter: 'Are you going to work assiduously on this alone, thereby impinging on the time for convalescence and treatment?' Sejong took no notice.

In the winter of 1443–4, the twenty-eighth year of Sejong's rule, the great work emerged from its secretive gestation and was published as *The Correct Sounds for the Instruction of the People*. (In fact, to later historians, the alphabet's appearance came to seem like a divine revelation, because *The Correct Sounds* was lost for five hundred years, until its rediscovery in 1940.) Sejong's introduction (in Chinese) summarized his purpose in a classic statement which, in its Korean version, schoolchildren now learn by heart:

> The sounds of our language differ from those of China and are not easily conveyed in Chinese writing. In consequence, among the ignorant, there have been many who, having something to put into words, have in the end been unable to express their feelings. I have been distressed by this, and have newly designed a script of 28 letters, which I wish to have everyone practise at their ease and use to advantage in everyday life.

Sejong had no doubt about the benefits and the ease with which it could be learned.

What I really needed was a Grand Unified Theory of Culture that explains creativity, human interaction and progress, and generally tell me the meaning of it all. Pending that, I began to play with another idea that's on the loose.

If you're interested only in the history and find theorizing a pain, you could skip to the next chapter. But if you're still with me, let's look at the alphabet from the alphabet's point of view.

Ever since Darwin put evolution at the top of the agenda for biology over a century ago, historians have made comparisons between biological evolution and cultural evolution. (In fact, Darwin himself did, wondering whether the emergence and death of languages might be explained by a version of natural selection.) Both types of evolution are superficially similar in that both achieve ever higher levels of complexity.

Of course, there is no comparison in terms of hardware – parents do not physically transfer mental information to their children. Kids only acquire the cultural complexity developed by their parents as a result of teaching, conscious or unconscious, and they may or may not pass it on to their children. Biological evolution, with its unpredictable consequences, is

were forgotten, the names kept, with the addition of a Greek *-a* ending (*alep* becomes *alpha*; *beyit*, *beta*).

Other 'spare' Phoenician consonants – *he*, *yod* and *ayin* – became the Greek *e*, *i* and *o*, while the Phoenician *wau* split in two to form both a consonant and a fifth vowel, *u*. There were other novelties as well, like a new *f*-sound, *phi*. The adapter didn't seem to be certain of the orientation of the letters, because several were rotated or inverted. And for a collection of four related Phoenician sounds and letters – roughly equivalent to *z*, *s*, *ts* and *sh* – the adapter exchanged sound, name, letter shape and order. Here's what should have happened, if the adapter had made the most logical choices, compared to what actually happened:

Phoenician	**Should have become**	**But actually became**
Zai/z	San/s	Zeta/dz or sd or zd
Semek/s	Sigma/s	Xei/sh, later ks
Sade/ts	Zeta/dz	San/s
Sin/sh	Xei/sh	Sigma/s

Why these changes occurred has been the subject of highly complex research and arguments, incomprehensible to those unfamiliar with Arcado-Cypriot Labiovelar Palatalization and the like. But some details

INDEX