WRITTEN IN STONE

A JOURNEY THROUGH THE STONE AGE AND THE ORIGINS OF MODERN LANGUAGE

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Introduction

Say the word **pu**. Then say **pe**, and think about how your face is moving as you form the syllables. Now say **mei**, and feel the different shape your mouth makes.

This is how language began. The earliest words in our modern vocabulary date back at least 8,000 years, and they describe themselves: we can work out what the words meant by their sounds, and by the shapes our lips form when we say them.

Pu: say it again. Your mouth is pursed, your nose is narrowed. There's an expression of distaste on your face. You are blowing out a breath, as if to dispel a bad smell. In the Stone Age, **pu** meant exactly what it means today – *poo*!

Pe is quite different. It starts with the lips together, and then separates them with a faint pop. **Pe** means *open*. The ancient sound is at the core of the modern word: *open*.

When you say **mei**, your mouth stretches from side to side, before you open wide and show your teeth. **Mei** makes you do exactly what you're saying – it means *smile*. And once again, the old sound is at the centre of today's word: *smile*.

This is how Indo-European, the most successful language in world history, began ... with intuitive sounds that really mean what they say.

Hundreds of these single-syllable words used by our ancient ancestors are at the heart of English. These sounds shape our language; the ideas behind them have moulded the modern world. In fact, half the world's population speaks a language that has evolved from a single, prehistoric mother tongue. It was never written down, yet many of its words are unchanged or barely different from their Stone Age sounds.

These words didn't arrive from the source language straight into English. It has been a long journey across many millennia. But whether our modern vocabulary arrived by way of the classics, the Germanic tribes or from the Viking north, all of them share a common root – in a language spoken on the Black Sea steppes, more than 4,000 years before the Roman Empire.

They are the DNA of English: the genetic basis of everything we speak and write.

'... our English tongue, a gallimaufry [*sic*] or hodgepodge of all other speches [*sic*]' is how the poet Edmund Spenser described the language in 1579. Whenever we string a sentence together, we're using words that have been imported from many countries and cultures – from Latin and Greek, from Brythonic, Pictish and other Celtic tongues, from Saxon, from Norse, from French, Spanish, Dutch and German, and even from Slavic, Persian and Indian languages.

But the common ancestor of all these sources was first spoken in Stone Age times, on the steppes of central Asia up to 8,000 years ago. It flourished and evolved for around 4,000 years, even though it was never written down, and spread from the shores of the Black Sea across almost all of Europe and much of Asia.

This ancient mother tongue was spoken by Neolithic tribes who domesticated horses and cattle, invented the wheel and the plough, told stories, grew wheat, made wool and even collected honey. But if they had a name for the language, it has been lost. Archaeologists and linguists refer to it as Indo-European, or sometimes Proto-Indo-European.

Some of their words have survived unchanged to the present day, such as **thaw** and **path**. Many more are virtually the same: **gat** meant to *get*, **halp** to *help*, **dars** to *dare*, **lig** to *lick*, **dran** to make the *droning* noise of a bee, **mur** to *murmur* and **wargh** to *worry*. **Frus** was a *frost*, **mald** was *mild*, **sniw** was *snow* and **sparg** was a *spark*.

Even the most coarse words in English, the ones we sometimes describe euphemistically as 'good old Anglo-Saxon

words', are in fact thousands of years older, barely changed since Stone Age man first started cursing.

By discovering these primal words, the building blocks of everything from Latin to Sanskrit and Welsh to Gujarati, we gain an entirely fresh perspective on how we speak and write. The Neolithic syllables have evolved to spawn numerous new words that share common themes, like factions or families within each language.

For more than 200 years, Indo-European has been a subject of intense study for linguists and anthropologists, including the Brothers Grimm and the author of the first dictionary of etymology, Walter Skeat. The origins of the tribes who spoke it are the subject of fervent scholarly debate and scientific literature.

But to the average enthusiast of words and popular science, this entire topic is unknown. Just about nobody outside the arcane world of linguistic archaeology is familiar with the hundreds of prehistoric monosyllables that have been identified at the roots of modern vocabularies – such as **gla**. It means to *glow*, and is re-echoed in *gloat*, *gloom*, *gloaming*, *glower*, *glory*, *gloss*, *gold*, *gleam* and even *yellow*. After thousands of years we still use **gla** countless times every day. We might not know it, but we're speaking in a Stone Age tongue.

Who were these Stone Age tribes?

We do not even know their name, and a vigorous controversy continues over the question of where they first lived. But their influence is immense: we share so much of their language and their thinking. Whoever they were, these ancient people are at the heart of Western civilisation, because their words shaped our world-view.

Early scholars dubbed them the Aryans, because they were farmers: the word **ar** means to *plough*. But they were much more than just farmers – they were storytellers, travellers, warriors, politicians, inventors, empire-builders, potters, merchants and

explorers. The term Aryan took on a more sinister meaning in the 1930s and has long since been dropped, without being replaced.

They invented the wheel – their two words for that crucial technology were **kweklos** and **roteh**. One gives us *wheel* and *circle*, the other *rotor* and *chariot*. They also came up with the *axle*, which they called **aksor** (which is not only the root of *axis*, but in Anglo-Saxon and medieval English meant shoulder, because the shoulders are the *axle* of the arms). And their word for *transport* was **wagh**: that gives us *wagon*.

Today's researchers can't even name them after the place where the culture first developed, because that isn't known either. The most popular current theory links them to the Kurgan culture around 4,500 BC, whose burial mounds are dotted across the Eurasian steppes, in what is now Ukraine and Kazakhstan. There is archaeological data to suggest that they date back even further, to the region of Anatolia in modern Turkey and elsewhere. Most academics agree that they dispersed completely around 2,500 BC, during the early Bronze Age. By that time, Indo-European had evolved so much, in so many different directions, that it no longer existed in its original form. The mother language was gone, and its children had inherited half the globe.

A clearer picture of their day-to-day life emerges from the words that have been passed down to us. They kept sheep and goats, for wool as well as meat – we know, because they had terms for shearing, spinning and weaving, as well as sewing. They drank horse's milk and made cheese and yoghurt; meat broth was a staple, seasoned with wild seeds and herbs. Wild apples and honey were a prized treat. But they also grew grain (**grno**), which they ground into flour and baked as flatbread.

Some tribes were nomadic, and the invention of the wheel transformed their lifestyle. Instead of carrying everything they owned on sleds, pack animals or their own backs, they were able to build carts. That meant they could transport not only their

tents and supplies of dried food but water too – an innovation that gave the wanderers the scope to travel much further than ever before.

It's a vivid image: an immense wagon train of families with their herds of sheep, wending across the prehistoric grasslands towards an unknown frontier, carrying all that they needed to survive. Rugged tents. Salted meat. Pots of water stoppered and stacked on carts. Heaps of cloth for making garments or for trading. The younger men would have been on horseback, driving the flocks, while a chain of mares and foals followed the wagons (these horses were bred for their milk). And pulling each wagon at a plod was a world-weary yoked pair of oxen (**uksen**).

We can say with certainty that this culture and its language evolved in northern climes, because it has no words for the exotic animals of the south – no tiger, no elephant, no giraffe, no crocodile. But it does have words for bear, wolf, beaver and otter, for birch, oak, willow, ash and elm. Some are barely different in English today (**as** and **elmo**, for instance).

They wore ornaments made from bone, boar tusk and cattle horn (the word for horn was **ker**, giving us *cornet*, *carrot* and *ginger* ... three things that are roughly horn-shaped). They fished with bone harpoons and baited bone hooks; though they were not hunters and rarely killed wild deer for meat, they could use wooden bows with flint-tipped arrows. The bows, especially when fired from horseback, made them deadly raiders.

By studying numerous current languages, as well as their defunct forerunners, linguists can decode the particular sounds these Stone Age people used for different objects and concepts. Scientists call it 'back-engineering' – taking a modern concept and tracing its evolution in reverse, to arrive at the original design.

It's a process of detection that reveals a wealth of history, and teaches us to think constantly in new ways about everyday words.

For instance, the word for plough in medieval English is *ear*. That gives us *arable* today. In Greek, a plough was *aratron* and the Latin word was almost the same: *aratrum*. In Icelandic it is

arthr, in Armenian *araur* and in Lithuanian *arklas*. The same monosyllable is constant in all; this evidence, and much more, suggests that the Stone Age word for plough was **ar**.

This prehistoric language followed strict rules of grammar that have also lived on. When words changed tense, for instance, they changed their ending: in the past tense, a 'd' was added, just as in English.

Words were combined to create new words: poets were word-weavers, or **wekwom-texos**. The language had a complex syntax, with cases, tenses, moods and voices (nouns could be subject or object; verbs could be past, present or future, passive or active). This was not a stark language but a beautiful one. It used three aspirated consonants that English doesn't use – **bh**, **dh** and **gh**, which are spoken as 'b', 'd' and 'g' with a puff of breath afterwards.

It was so adaptable and effective that it not only travelled with the tribes as they spread out across Europe and Asia – it pushed out and superceded other languages wherever it met them. And as it travelled, it changed, so that it became many regional dialects and, over thousands of years, entirely new languages.

In Europe today, there are few tongues that didn't start with Indo-European (the main examples are Hungarian and Finnish, and Basque). In Asia, the Stone Age words echo from Iraq and Iran to India and Vietnam. By contrast, languages that evolved from other sources – such as the fifteen clicking noises of Xhosa in South Africa, or the nasal sounds of Guarani in Paraguay – seem impossibly alien to Indo-European speakers. It's proof that today's languages didn't evolve across two continents by accident – they developed from a mother tongue that was infinitely more efficient, memorable and flexible than anything the other tribes could come up with.

Whoever these people were, they didn't just invent the physical tools that made travel, warfare and farming possible. They also developed the essential mental tool: a dynamic language.

Language made complex religion possible. The Neolithic farmers, who had numerous words for snow, rain and sunshine, relied on the seasons for their food, and so they worshipped the skies. Their word for the king of the gods was **diw-pitar**, or *sky-father*. To the Romans he was *Jupiter* (which is almost the same word); to the Greeks he was simply *Zeus*.

Who uncovered this Stone Age language? (And were they all barking mad?)

'My leisure hours, for some time past, have been employed in considering the striking affinity of the languages of Europe', wrote the physician James Parsons 250 years ago. He was the first scientist to recognise that English had echoes across the continent and throughout half of Asia, and he had an ingenious biblical explanation for it: the people of the Earth were descended from Noah's three sons, Shem, Ham and Japheth. Clearly, these three boys must have spoken different languages, which spread into Africa, the Middle East and, lastly, to Europe.

No one took much notice of Parsons' 1767 book, *The Remains of Japhet*, because although he was a member of the Royal Society and the Society of Antiquaries, he was better known for his studies of the human bladder and of hermaphroditism.

Yet Parsons was only the first of an extraordinary parade of thinkers, eccentrics and obsessives who laid the groundwork for the study of Indo-European roots – a study that today attracts many of the most brilliant minds in archaeology and linguistics.

The first scholar to be taken seriously was Sir William Jones, who discovered in 1786 that Sanskrit, the 3,500-year-old holy language of India, was closely related to Latin and Greek. Jones was so brilliant as a youth that his hobby during his teens was writing Latin poetry. A political radical who supported the American Revolution, he was a friend of Dr Johnson, and rose to become Chief Justice of the Supreme Court in Calcutta, India.

In a lecture to the Asiatic Society in 1786, Jones highlighted the similarities between Latin, Greek and Sanskrit. They bore, he said, 'a stronger affinity, both in the roots of verbs and the forms of grammar, than could possibly have been produced by accident; so strong indeed, that no philologer could examine them all three, without believing them to have sprung from some common source, which, perhaps, no longer exists.'

That speech marked the start of serious academic research, but not the end of the oddball influence. Indo-European, for some reason, attracts eccentrics and polymaths.

Rasmus Rask, for instance, a Danish professor who spoke twenty-five languages – including Persian, which he learned fluently in just six weeks – travelled from Iceland to Bombay in the early 1800s, studying the similarities between words. And in 1813, Thomas Young, the polyglot who helped to translate the Rosetta Stone and so cracked the code of Egyptian hieroglyphics, coined the name Indo-European for the prototype language. At the time, he was studying translations of the Lord's Prayer in hundreds of languages and dialects.

Franz Bopp arrived in Paris in 1812 determined to devote his life to the study of Sanskrit. For the next five years he spent every waking hour in the city's libraries, completely oblivious to the fall of Napoleon, the return of the emperor from exile, the battle of Waterloo and the restoration of the monarchy; all he cared about was tracing the grammar and inflections of dead languages. He invented the term *Stammsprache*, or source language.

In the middle of the nineteenth century, August Schleicher published the first attempt to reconstruct a forerunner of all Indo-European languages, even using it to write a folk story called 'The Sheep and the Horses'. By the time he was thirty, Schleicher had developed a theory that languages are living organisms that are born, mature, bloom and die. He also discovered the concept of evolution, several years before Darwin published *The Origin of Species* – but applied it to words instead

of animals. Schleicher died from tuberculosis, aged forty-seven, in 1868.

The Brothers Grimm, Jacob and Wilhelm, were not only folk-tale collectors: their theories of linguistics explained how words change as they travel. For instance, Grimm's law states that a 'k' sound in the source language always stayed as a 'k' in Latin (albeit written as a 'c'), but became an 'h' in Old German – so the Stone Age word **k'mtom** became *centum* in Latin (and *ekaton* in Greek) but changed to *hunda* in Gothic, and so to *hundred* in English. It's impossible to see the connection between **k'mtom** and *hundred* without those intermediary stages; once Grimm's law is applied, all sorts of links become visible.

The first scholar to write a dictionary of English etymology was Walter Skeat, who devoted much of his life to detective work with words. He traced thousands of origins for his four-volume dictionary, completed in 1882, and included a glossary of 467 root words from Indo-European.

In the twentieth century, Eric Partridge compiled *Origins: A Short Etymological Dictionary of Modern English*, which gathered words onto family trees, tracing the branches back to roots that were usually Indo-European. Partridge, a New Zealander who served with the Australian infantry during the First World War, had become fascinated with slang and the hidden history of words in the trenches, listening to soldiers swearing in ways learned from all over the British Empire.

Finally, Joseph Twadell Shipley was a Brooklyn-born theatre critic who devoted his later years to a vast 'discursive dictionary' of Indo-European roots, into which he shovelled anything that occurred to him – poetry, myth, jokes, folk songs, the periodic table, apocrypha, diatribes and scatology.

All these scholars were inspired and sometimes unhinged by the beautiful implications of Indo-European. Read this book with caution – the contents are mind-altering. You will never think about words in the same way again.