

MAP 6.1

AMONG THE many texts brought back to Europe by early explorers, scholars noticed a group from the north side of the Tarim Basin that no one could read. These came largely from Kucha, Karashahr, and Turfan (map 6.1). The script looked reasonably familiar (fig. 6.2), largely resembling the well-known Brahmi scripts used for Sanskrit and Prakrit in India. (The Brahmi writing system best known to Westerners today is devanāgarī, in which the letter forms hang from the line like so much fresh laundry.) But the language was totally new. Fortunately many of the texts were translations of familiar Buddhist literature, so experts soon worked out the rudiments of grammar and vocabulary of this new tongue. Or rather, tongues, for the script hid not one but two closely related languages or dialects, nicknamed A and B. To everyone's surprise, these twin sisters represented an entirely new branch of the Indo-European family tree.

What is a language tree? It is a diagram showing how certain languages are related to one another. We can demonstrate the relatedness of some but not all

*Opposite page:* Map of Tokharian areas. Texts in Tokharian have been found principally at sites within the hatched area. The Yuezhi tribe, which probably spoke Tokharian, is said to have lived in Region 1 until chased out by the Xiongnu sometime before 150 B.C. The smaller half retreated to the hatched portion of 1; the larger half migrated to Region 2 (Ili River and Lake Issyk), then 3 (Fergana Valley), then 4 (Bactria, by 130 B.C.), and finally to 5 (Gandhara). Sections of the Great Wall of China, built to guard against the steppe horsemen, run from Dunhuang to east of Beijing.



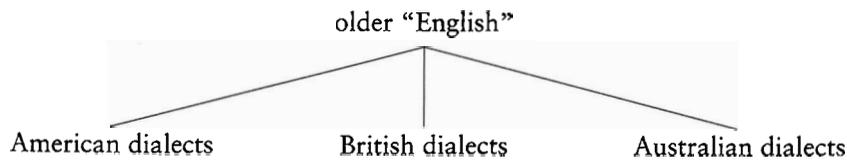
FIGURE 6.2

Left: Inscription on first sheet of Tokharian document written in a Brahmi script, saying (left to right) *pra-tha-ma ma-lto*. The first word means “first” in Indic; the second “first” or “head” in Tokharian. (After Sieg and Siegling.) Right: Heading of Prakrit document written in Kharoṣṭhī script on leather and found by Stein in rubbish heap at Niya, saying (right to left) *ma-ha-nu-a-va ma-ha-ra-ya li-ha-ti* (“His Highness the Maharaja orders”), a common opening in short texts. (The sign *ha* looks like our 2.) (After Stein.)

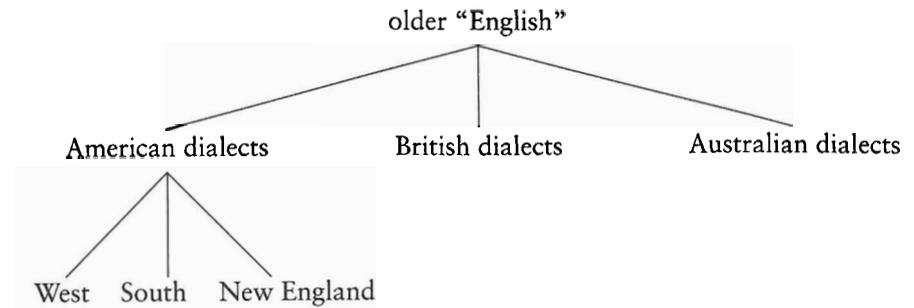
languages. (Of course all languages may well be ultimately related, but that common ancestor would be so far back in prehistory that we can’t know for sure. So if we say two languages aren’t related, we mean only that we haven’t enough data to *prove* a relationship.)

No one can listen to English very long without realizing that it comes in many varieties. Speakers from Boston and Los Angeles titter at each other’s peculiarities of speech, while neither group can easily understand people from the Deep South, let alone from Yorkshire or the Australian outback. Yet all these dialects are changed later forms of “English” spoken in England before the New World was colonized. Travel then was slow and dangerous, so pronunciation changes and words for new things that developed in the colonies seldom made their way back to England. Nor did fashionable changes in the language as spoken in England make it out to the colonies; after all, language in the “mother” country kept changing too. The dialects diverged, in short, and now we *all* speak differently from the way we did in Shakespeare’s day. (Who is “right”? None of us and all of us. We simply differ. All languages used by people who speak them natively keep changing, by their very nature and design.)

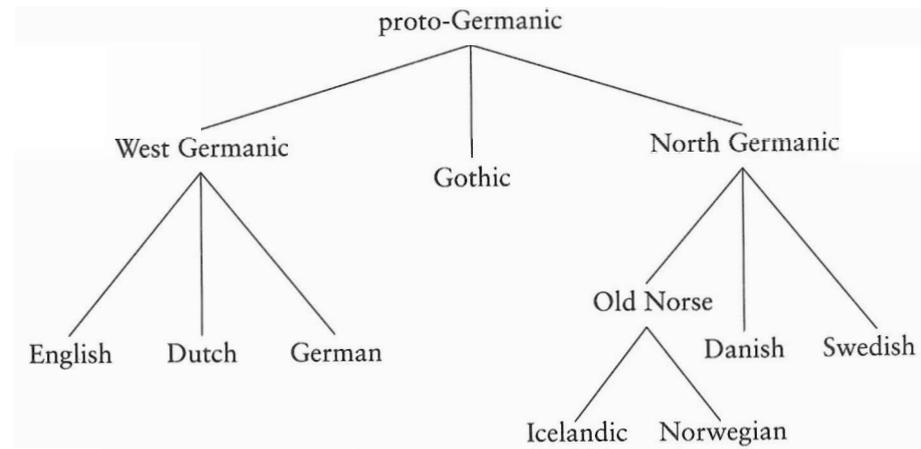
The relation between the worldwide dialects of English can be drawn in “tree” form—most conveniently with the twigs branching downward in time:



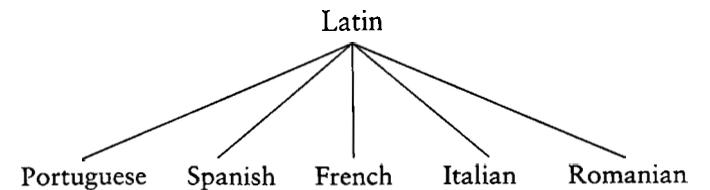
We could also add a tree for the continued development of U.S. dialects:



In the same way we can make trees that go further back in history. For instance, linguists can demonstrate that English, German, Dutch, and the Scandinavian languages are also simply changed later forms of a common ancestor language, spoken nearly two thousand years ago. We label this ancestor *proto-Germanic* (i.e., early Germanic) since we don’t know what those preliterate people called themselves:



Likewise, several well-known modern languages descend from Latin as it was spoken in the Roman Empire around A.D. 400:



We even possess written documents across time and space that prove how each of these languages developed step by step from Latin. Thus the Romance (Roman-descended) languages and dialects have long provided an important laboratory for the study of language change and divergence.<sup>1</sup>

Back in 1786 Sir William Jones expressed the radical but insightful opinion that the Sanskrit texts of India (newly “discovered” by European scholars) bore to Classical Greek and Latin “a stronger affinity, both in the roots of verbs and in the forms of grammar, than could possibly have been produced by accident; so strong, indeed, that no philologist could examine them all three without believing them to have sprung from some common source, which, perhaps, no longer exists.” He then added the Germanic and Celtic language families to his list of presumed kin. This was a major breakthrough, for Sir William had discovered the huge language family now called *Indo-European* (fig. 6.3). Why the name? Because this language family includes many (though not all) of the languages spoken in Europe, the Middle East and India, and because that was roughly their full extent before Columbus started the stampede to America.

What’s more, Oriental Jones (as Sir William was called) had glimpsed a crucial notion: that the “original” language no longer exists as such. Just as with English, both the people who stayed home and those who moved away continued to change their language. Thus *everyone* ended up speaking changed later forms of a language that was no longer spoken. We no longer speak the English of the great English poet Chaucer, who lived less than a hundred years before Columbus. Just try reading his original text:

Whanne that April with its shoures sote  
The droughte of March hath perced to the rote. . .

(That is: “When April with its sweet showers/ Has pierced the drought of March to the root. . .”) The common ancestor of our Indo-European languages—nick-named *proto-Indo-European* for lack of knowing what its speakers called themselves—was spoken around 3000 B.C., by our best estimate. But the earliest written texts in any Indo-European languages postdate 2000 B.C. So we are talking about prehistory again, and what we know of proto-Indo-European we

<sup>1</sup> Note that the distinction between “dialect” and “separate language” can be quite fuzzy among forms of speech derived from a common ancestor. How many differences have to accumulate before we stop saying “dialect” and start saying “language”? I personally find it easier to understand Italian on the basis of knowing Spanish than to understand Yorkshire English on the basis of speaking western American English, yet Yorkshire and American are treated as dialects of one language called English, whereas Spanish and Italian count as separate languages. There is no simple answer to this problem; it is a matter of degree, of what you wish to focus on, and of historical and political accident.

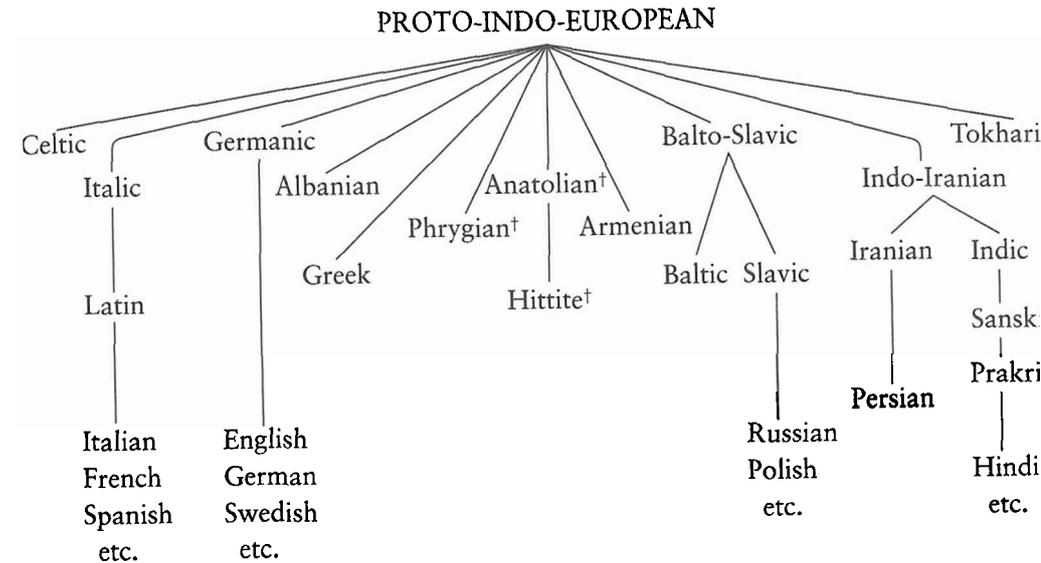


FIGURE 6.3

Simplified tree chart of languages in the greater Indo-European language family, which—before Columbus—extended from northwestern Europe to northern India. (It is now the dominant family of the New World as well.) The branches on this chart follow roughly *where* the daughter families ended up, west to east. Compare fig. 7.3, organized according to *when* the daughter families seem to have branched off. Not all descendants are listed; families marked with daggers have died out completely.

have had to reconstruct by regular principles from the daughter languages (see fig. 6.4).

The two languages, A and B, of the mysterious northern Tarim manuscripts were found to have the same sorts of nonaccidental relationships to other Indo-European languages that Sir William Jones saw among Greek, Latin, and Sanskrit. The twins belonged on the Indo-European tree—but where? Who were their nearest relatives? What were these new tongues called? How and when did they get out to the wilds of Chinese Turkestan when all their relatives flourished far to the west? And is this the language that our Western-looking mummies once spoke?

Clearly these language relationships have a strong bearing on interpreting the early migrations into Chinese Turkestan from the West. The language questions, moreover, closely parallel the textile problems, a fact that becomes more apparent as we look further into Languages A and B.

Linguistically these twins show features lumping them most closely with the *westernmost* Indo-European languages: Celtic and Italic, and to some extent

ENGLISH	LATIN	GREEK	SANSKRIT	TOKHARIAN (A/B)	Older Form:
mother	māter	mētér-	mātár-	mācar	< *mēter-
me	mē	me	mā		< *mē
moon/month	men-sis	mēn		mañ/meñe	< *men-
six	sex	hex-	ṣaṣ	ṣāk	< *seks
seven	septem	heptá	saptá	špät	< *septm̄
sew	su-	hu-			< *su-
nine	novem	e-nnéa	náva	ñu	< *newŋ
name	nomen	ó-noma	nāma	ñom/ñem	< *nomn-
night	noct-	nukt-	nákt-	noktim	< *nok <sup>Wt</sup> -
nee-dle	ne-	nē-	s-nā-		< *(s)nē-
weave		huph-	ubh-	waw/wap-	< *uB-
wool	lāna/vellus	lēnos/ōulos	ūrṇā		< *Hwln-

TABLE 6.4

Table showing cognates of a few words in various Indo-European languages from different subfamilies. (See fig. 6.3 for the subfamilies.) Note that although sounds differ from one language to the next, they show *regularity* in their variation. Thus, for example, what is word-initial *s-* in most of the languages always shows up as *h-* in Greek, and the vowels *e* and *o* always turn up as *a* in Sanskrit. The regularity is more real than apparent sometimes since the interactions between neighboring sounds can get quite complex while still being quite regular. To keep the reconstructed forms at right somewhat intelligible to nonlinguists, the transcriptions have been simplified; capital letters indicate sounds for which there are no Latin letters.

Germanic. But they are not particularly similar to their nearest geographical neighbors, Indo-Iranian and Balto-Slavic (see fig. 6.3). This is all the more surprising because other Tarim Basin people in the first millennium A.D. were writing and speaking Indic and Iranian languages. And indeed, the twins have many loanwords from these neighbors. But their basic structure is neither Indic nor Iranian, nor that of any other Indo-European daughter group. The pair forms a separate branch of the tree and, on the face of it, one that originally hobnobbed with the most westerly branches. We will come back to this problem presently.

As with proto-Germanic and proto-Indo-European, no one knew what the writers of these inscriptions called themselves or their language, and scholars began to fret over how to label the new dialects. Some sidestepped the issue by using geographical adjectives. At the oases of Turfan and Karashahr (map 6.1), explorers had found documents in both Language A and Language B, whereas

As with proto-Germanic and proto-Indo-European, no one knew what the writers of these inscriptions called themselves or their language, and scholars began to fret over how to label the new dialects. Some sidestepped the issue by using geographical adjectives. At the oases of Turfan and Karashahr (map 6.1), explorers had found documents in both Language A and Language B, whereas

at Kucha they had found only B. So Language B could be called Kuchean, and the less widespread one (A) Turfanian. On the other hand, B clearly functioned as the local vernacular, whereas A appeared to be more archaic, perhaps a liturgical language like Latin today—a written form used only in church and school-room, no one's native language anymore.

One manuscript found near Turfan provided grist for a mill that has been grinding ever since. A Buddhist text, like most of the others, it was written in Uyghur, still the dominant Turkic language in the Uyghur Autonomous Region today, and quite readable. (Turkic is not Indo-European; it belongs to the Altaic language family. See fig. 9.7.) The colophon or capsule description on the document stated, moreover, that this text, a drama, had been translated into Turkic from a language called *tughry*. Interestingly all other known versions of this drama are written either in Uyghur, like this one, or in Turfanian—that is, Language A. The experts pounced: *tughry* must be the name of Language A at least, if not of both dialects.

It so happens that the people who did most to spread Buddhism into the Tarim Basin lived in northern India, having recently emigrated there from Bactria (map 6.1, Region 4). Before that, Greek historians tell us, this same group had moved into Bactria from Fergana (Region 3) in the second century B.C. (The Fergana Valley lies immediately west of the Tarim Basin across the Pamir Mountains. It is so rich that today a fantastically gerrymandered border divides it into unequal thirds among Uzbekistan, Tajikistan, and Kyrgyzstan; no one wishes to give up an inch of its soil. The Greeks had become acquainted with this whole area in 329 B.C. while following Alexander the Great to India and back; see map 10.7.) Thus in a short time these wanderers had moved from Fergana to Bactria to northern India (today northern Pakistan), where they eventually converted to Buddhism. They are known to Greek history as the *Tókharoi* and to Sanskrit documents as *Tukhāra*.

On the basis of the similarity of the word *tughry* to these names, and in view of the strong Buddhist connection, two scholars in 1908 declared that the new language(s) must have been called Tokharian. And so the twins are labeled to this day, Tokharian A and B, even though we have no further proof the equation is right. Whatever we call them—and I'll use "Tokharian" from now on as a convenient label—we do know that the languages descended from proto-Indo-European.

Whereas Tokharian A and B—Turfanian and Kuchean—were spoken in the northern Tarim Basin, ghostly shadows of a third related dialect have survived in numerous loanwords found in administrative documents of the southern Tarim. These latter were written in Prakrit, an Indic and hence (also) Indo-European language, using the Kharoṣṭhī script of India. We have mentioned that

these Kharoṣṭhī tablets used the form *Kroraina* to refer to the town and kingdom that the Chinese, with their more restrictive sound system, reduced to *Loulan*.<sup>2</sup> Hence this third dialect goes under the label *Krorainic*, although we do not know for certain that it was the chief language of the Kroraina kingdom. The Prakrit documents with Krorainic loans come from an area considerably south of Kroraina/Loulan, and from documents of the third century A.D., several hundred years earlier than the main body of Tokharian texts. The earliness of Krorainic thus gives it special importance in tracing Tokharian linguistic prehistory, even though we have so little of it. On the other hand, the Tokharian A and B texts, all from areas north of Kroraina/Loulan, date principally from the sixth to ninth centuries A.D. Shortly after the last such texts the Tokharian language died out. New immigrants speaking other languages (such as Uyghur, the dominant Turkic language there today) moved into the Tarim Basin during the ninth and tenth centuries and soon overwhelmed the speakers of Tokharian.

As Indo-Europeans the Tokharians must originally have come into the Tarim Basin from much farther west. The same goes for the tall, hirsute, wheat-raising, sheepherding people represented by our mummies. The obvious question is: were some or all of our mummy people ancestors of the Tokharians?

Physically they could have been. The frescoes that the later Tokharians drew of themselves, piously donating bags of money to their local Buddhist monasteries or posing in a row wearing fine knightly attire, show great handlebar mustaches and full beards only half hiding pale cheeks (plate 16). Some men have dark hair and eyes, but others have light brown or even red hair and bright blue eyes. And all have high-bridged noses. In short, they look far more like the man from Cherchen or the “Bohemian burgher” of Loulan than like the Chinese, Mongol, or even Turkic peoples. We can no longer discern the eye color of our desiccated mummies, but unusual blue stones covered the Cherchen baby’s eyes and blue eyes were brocaded onto the Argali sheep, both inspired, perhaps, by blue-eyed people.

When the Chinese began to have regular contact in the second century B.C. with the inhabitants of Central Asia, the easternmost of whom they called the *Yue-zhi*, what amazed the Han Chinese most about these Yuezhi (besides their “barbarian” and “backward” ways) was how hairy the men were. Clearly men with heavy beards contrasted with the Chinese males, whose facial hair is restricted to upper lip and tip of chin. A modern Chinese scholar explains that the Han Dynasty Chinese came to use the name *Hú* for anyone with “deep eye sockets, prominent noses, and beards” and that this term *Hú* was applied to

<sup>2</sup>This linguistic process was described in Chapter 5.

the Yuezhi, among others, though not to the (Mongoloid) Qiang among whom the “Lesser Yuezhi” lived. Other Chinese sources characterized the “Greater Yuezhi” as having “white” or “reddish white” skin, another typically Caucoid feature.

So things seem to point to our mummies as being early Tokharians. The historical Tokharians had the same European physical features as the mummies, they spoke an Indo-European language that had to have come in from the West, and they and the Iranians were the only Indo-European speakers we have record of ever dwelling in the Tarim Basin.

But not so fast. People can change their language at will, without altering a single gene or freckle. The Tokharians of our documents lived and spoke in the first millennium A.D., whereas our mummies lived and talked between 2000 and 1000 B.C. We have a gap of over a thousand years to bridge to get from the mummies to the documented Tokharians and only a bit less to the Yuezhi and Krorainic. We also haven’t demonstrated whether the early people of Loulan, Cherchen, and other Tarim areas spoke languages from the same family as each other. At that early date all were illiterate like everyone else close by, so no direct records exist. Other groups speaking other languages (Indo-European or not) could well have wandered in from the west around 2000 B.C. and then died out completely, being replaced later by Tokharians. How would we know? In the course of time thousands of ancient languages all over the world must have dropped off their language trees without trace, like overripe plums. Until the Sumerians invented writing in Mesopotamia around 3500 B.C. or so, no permanent linguistic records existed, and none existed in East Asia until the Chinese developed their script about 1500 B.C. Yet humans had been speaking for a hundred thousand years or more when writing was invented, and even today not every culture is literate. Much has gotten lost.

Dead mummies speak not. As James Mallory, a well-known archaeologist of Indo-European cultures, has quipped, “the mummies don’t come with letters in their pockets” either. Making matches between languages and material culture is arguably the most difficult task prehistorians attempt. So how *do* we match unwritten ancient languages with tattered archaeological remains?

First, we must wring every possible drop of information, linguistic and otherwise, from literate neighbors; then—more difficult—we must wring out of our reconstructions of unwritten ancient languages any concrete cultural information that can be matched up unmistakably with the material remains.

In the case of the early Central Asian people, the nearest literate folk were the Chinese. The Chinese began probing to the west late in the first millennium B.C. through the Gansu (Kansu) Corridor, a long, narrow valley that led between the mountain ranges from the fertile provinces of northern China westward to the

edge of the Tarim Basin (see map 6.1). From the westernmost bend of the Yellow River, or Huang-he—named for the nutrient-rich yellow silt that it carries—to the eastern end of the Tarim Basin is a distance of nearly eight hundred miles, the length of California. A modern traveler flying over the broad zone of parched orange mountains between Beijing and Ürümchi can sometimes glimpse the Gansu Corridor running parallel to the flight path on the south side. With its intermittent watercourses, this long rift is only slightly less arid than the dusty mountains that flank it to north and south. But even a little water made Gansu a lesser evil for the ancient wayfarer.

The vast difference between China's rich agricultural valleys and the scrubby deserts and grasslands of Inner Asia gave rise, in fact, to the very problem that the Han Chinese of two thousand years ago needed to solve. All too often, horse-riding barbarian warriors swooped out of the western mountains into the lush Chinese farmlands, pillaging the settlements, killing the men, and carrying off grain, women, and silks. In vain the emperors bribed the barbarians to stay away, sending huge loads of silken textiles and even occasional royal princesses. With somewhat greater success the Chinese laborers built great stretches of wall across the mountains to keep the riders out of China and to give early warning of their approach. Around 220 B.C. the powerful Qin Dynasty emperor Shi Huangdi (literally "First Emperor") ordered many sections of previously built wall to be joined together into what the world knows today as the Great Wall of China (fig. 6.5)—roughly fourteen hundred miles long with twenty-five thousand watchtowers.<sup>3</sup>

But the mounted attacks continued, particularly by the ferocious *Xiong-nu* (pronounced roughly "shung-noo"), who were probably the ancestors of the equally savage Huns of Western fame. The only recourse left to China was somehow to weaken the barbarians internally.

Bit by bit the Chinese forced a passageway through the forbidding Gansu Valley to Dunhuang at its west end (map 4.7), famous later for its Buddhist caves and the Jade Gate leading to the desert beyond. Other people already lived in the Gansu Corridor—namely, those hairy barbarians the Chinese called Yuezhi—but no sooner had the Chinese arrived than the Xiongnu swooped

<sup>3</sup> A newscast a couple of years ago announced that the Chinese had just discovered a long-lost two-hundred-mile section of wall. How can you lose something two hundred miles long? (Contrary to popular legend, the Great Wall is *not* visible from space.) The fact that such a thing could happen bears witness to the desolation of this countryside in western China.

Although short-ruling, the powerful Qin (pronounced "chin") Dynasty that hooked up so many pieces of the wall apparently gave us our name for the country, China. Emperor Shi Huangdi is also famed today as the man who caused thousands of life-sized terra-cotta warriors to be set up to guard his tomb—still unopened because of its enormous size and the number of booby traps built into it.

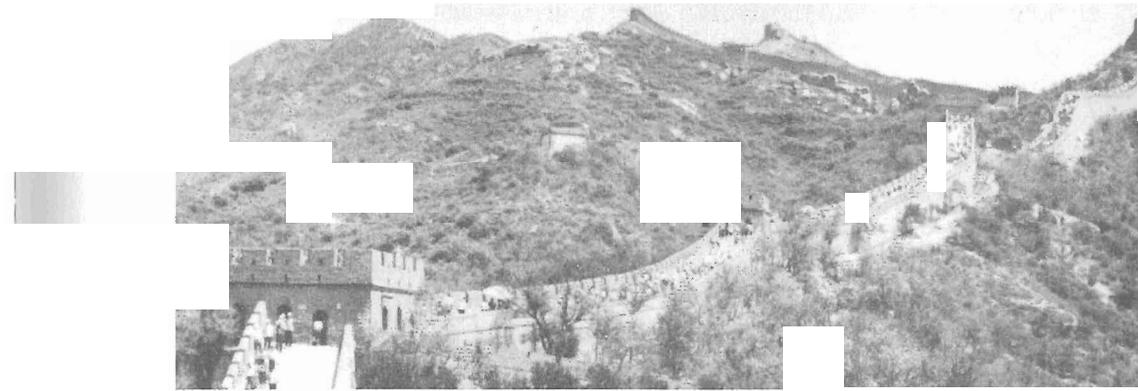


FIGURE 6.5

A restored section of the Great Wall of China, as it looks today near Beijing. The roadway connecting the watchtowers was protected on the enemy side by a crenellated shield wall.

down from the north, chasing the Yuezhi westward out of Gansu and blocking the way again. A description from that time reported: "Formerly they [the Yuezhi] were very powerful and despised the Xiongnu, but later, when Maodun [Modun] became leader of the Xiongnu nation, he attacked and defeated the Yuezhi. Some time afterwards his son . . . killed the king of the Yuezhi and made his skull into a drinking cup." The emperor Wudi (one of the great Han Dynasty rulers) then sent an ambassador named Zhang Qian (pronounced roughly "chian") to persuade the disgruntled and dispossessed Yuezhi to attack the Xiongnu from their new position in the west while the Chinese beset them from the east—a classic squeeze.

Zhang Qian was a palace attendant when the emperor called for a volunteer capable of carrying out this difficult and dangerous mission. Accompanied by a hundred men and guided by a former slave of the Xiongnu, named Ganfu, he set out westward through enemy territory soon after 140 B.C. The Xiongnu captured them, however, and took them to their king, the Shanyu, who had no intention of letting a Chinese envoy get through to his far flank. The Shanyu did not kill his captives, however, but married Zhang Qian off to a Xiongnu woman, with whom he had a son. After ten years, being less closely watched than before, the emperor's envoy finally managed to sneak away to the west, apparently taking his new family and Ganfu with him.

A month of travel brought the fugitives to the kingdom of Dayuan (modern Fergana). Its ruler had heard report of the wealth of Han Dynasty China and

was delighted to make direct contact at last. He entertained the Chinese emissary and sent him on his way, with guides and interpreters, to the Yuezhi now living in the area that the Chinese envoy called Daxia but that Alexander and his Greeks had called Bactria when they conquered it exactly two hundred years earlier.

There, however, the mission fared less well. It seems that the son of the unfortunate king who had been made into a drinking cup had moved with his people some fifteen hundred miles westward to a valley “rich and fertile and seldom troubled by invaders.” Comfortably settled at last, he had no wish to scare up trouble again, let alone reencounter the bloodthirsty Xiongnu. After a year Zhang Qian gave up talking and headed home toward China—only to fall once again into the hands of the Xiongnu. But luck eventually wandered by again. A year later the Shanyu died and civil war broke out among the Xiongnu over the succession. Amid the turmoil Zhang Qian, his wife, and Ganfu finally made it back to China. The year was 126 B.C., thirteen years since the envoys had left.

Although Zhang Qian had failed in his ostensible mission, he had gathered much valuable information about the people and areas beyond the Xiongnu, and the wise emperor honored him for it. We benefit also. To begin with, we learn that “the Yuezhi originally lived in the area between Qilian or Heavenly Mountains and Dunhuang.” Today the name Qilian refers only to the mountain range lining the south side of the Gansu Corridor, also known as the Richthofen range; whereas the mountains continuing the same line farther west, dividing the Tarim Basin from the Dzungarian Basin, are known now as the Tien Shan or Tängri Tagh, literally the “Heavenly Mountains” in both Chinese and Uyghur (respectively). It appears from various bits of evidence, including Zhang Qian’s description, that the early Chinese called any of this line of mountains out in the wild west by both names—Heavenly Mountains and Qilian—indiscriminately. Note that Dunhuang is only a few miles north of the Richthofen range, hardly enough space for the sizable nation described as living out there. The area between Dunhuang and today’s Tien Shan, however, is the space of several hundred miles around Kroraina/Loulan and Kucha, a territory that would give the Yuezhi considerable room to live.

The imperial envoy continues: “. . . but after they were defeated by the Xiongnu they moved far away to the west, beyond Dayuan [Fergana], where they attacked and conquered the people of Daxia [Bactria] and set up the court of their king on the northern bank of the Gui [Oxus, or Amu] River. A small number of their people who were unable to make the journey west sought refuge among the Qiang barbarians in the Southern Mountains, where they are known as the Lesser Yuezhi.” In short, the Yuezhi split up early in the second century B.C. (Stage 1: see map 6.1). The larger group traveled west-northwest

past what is now Ürümchi to the vicinity of the Ili River and Lake Issyk (in modern Kyrgyzstan; Stage 2), and thence southwest to Fergana (Stage 3) and then Bactria (Stage 4). The smaller group, however, remained in the Tarim Basin, just up into the mountains from where they had been before (if our analysis of the mountain names is right). When he traveled through, said Zhang Qian, “the Loulan and Gushi peoples live[d] in fortified cities along the Salt Swamp.” *Gushi* equates linguistically with *Kucha*, while the Salt Swamp is of course the Lop Nor area. (Note that he distinguishes the Gushi from the Krorainians, but whether he means this linguistically or politically or both is unclear.) All these details correlate closely with what we learned of the Tókharoi from the Greeks, who also mentioned Stages 3 and 4 of the migration.

(We can also use Zhang Qian’s report to fill in more on our map of the Tarim Basin itself. Just west of the stay-behinds lived some people the envoy called the Yumi, then came the Yutian, and beyond the Yutian came the watershed we call the Pamirs, for “west of Yutian, all the rivers flow west and empty into the Western Sea, but east of there they flow eastward into the Salt Swamp.” Yutian thus can only be the west end of the Tarim Basin.)

We know that people in Kucha later spoke Tokharian, because that is where so many Tokharian B texts were found. Does that entitle us to assume the same for the Gushi folk in the second century B.C., half a millennium earlier? Were they among the remnants of the Lesser Yuezhi? And what did the Yuezhi speak anyhow? Can we show that *it* was Tokharian?

For some decades arguments roiled around this point. Since the Yuezhi themselves left no texts, the answer was sought in Chinese sources again. Of course the ancient Chinese historians don’t just come out and say, “The Yuezhi speak Language X.” So the focus of work had to shift to word histories.

As it happens, quite a few words attested in Old Chinese have turned out to have Indo-European etymologies. For example, a whole cluster of Chinese words to do with wheels, wheel spokes, axles, and chariots—all objects first invented in west-central Eurasia—has proved to be Indo-European in origin. Some of the terms can’t be assigned specifically to one Indo-European language or another; others seem to go back to Iranian forms. But several words belonging specifically to the Yuezhi—borrowed directly into Chinese or otherwise noted by ancient historians—have demonstrably Tokharian etymologies, starting with the names for the mountains where envoy Zhang Qian said the Yuezhi “originally” lived. The names of both the Qilian and Kunlun Mountains evidently came from a Tokharian word for “holy, heavenly” (A: *klyom*, B: *klyomó*—probably cognate with the Latin *caelum* [“sky, heaven”], from which we get the English *cel-estial*). Furthermore, the Chinese had recorded these names of those mountains several dynasties before the Yuezhi were chased out and the

emperor's envoy traveled through. Still today the mountain range rimming the north side of the Tarim Basin is called the Celestial or Heavenly Mountains (since that is what Chinese *Tien Shan* and Uyghur *Tängri Tagh* mean), and the southern mountain rim is called the Kunlun.

On the strength of such linguistic fossils, the identification of the Yuezhi as speakers of Tokharian has gained fairly wide acceptance.

The geography matches well too. The last stages of the semicircular trajectory of the Greater Yuezhi, moving from the eastern Tarim Basin to Fergana to Bactria (Stages 1–4 by way of Regions 1–4 in map 6.1), exactly coincide, dates and all, with the Greek chronicles mentioning the arrival of the Tókharoi from Fergana into Bactria. These Tókharoi then progressed through another half circle. First they moved to the northernmost corner of the Indian subcontinent (Stage and Region 5), where they became known to the Sanskrit writers as Tukhāra and where they took up Buddhism. Then they carried their newfound religion north across the Himalayas and Kunlun, right back into the Tarim Basin where they had left their cousins behind six hundred years earlier. (Did they know that? Is that why they climbed over whole mountain ranges to share their philosophical good fortune with their northern neighbors?) Maybe the archaic, churchy-sounding Tokharian A was the changed later language of the far-traveling Greater Yuezhi, now acting as Buddhist missionaries, while Tokharian B was the dialect developed by the stay-at-home descendants of the Lesser Yuezhi, perhaps that of the “Gushi” people. A manuscript of the late first millennium A.D., found at Dunhuang, says that a small state between Turfan and Kucha still had the name Yuezhi. It seems as though every signpost we trip over points to this one area.

So inch by inch we have fought our way to the precious information that Tokharian speakers had ensconced themselves in parts of the Tarim Basin, especially in the east, well before the Xiongnu started shoving people around in the second century B.C. We have also learned some of the value of old place-names.

The natural languages we know of are always changed later forms of older languages (hence the family trees we looked at), and among the most common types of change is word borrowing. People constantly borrow words for interesting new items that they encounter, including names for new places. The Chinese, as we saw, borrowed local Tokharian names for mountain ranges flanking the Tarim Basin. American settlers did the same thing, borrowing Amerindian names by the thousands: Allegheny, Adirondack, Massachusetts, Narraganset, Chappaquiddick, Potomac, etc. It is usually easier to borrow geographical names from the locals than to make up new ones, especially names of key geographical features, such as mountains and bodies of water. Old settlements too,

like London or Kroraina/Loulan, may hang on to their names for millennia; London's name was established in England long before Germanic speakers or even the Romans (still earlier) reached Britain. On the other hand, new settlements receive names from the language (or familiar name repertoire) of the founding people: New Haven, Walnut Creek, Grants Pass, New London.

When wave after wave of new people passes through, each group speaking a different language, the layers of old language accumulate like lines of seaweed on the sand behind the tide, each marking the extent of a former incursion of the flood. Thus in addition to sorting out which language is which, linguists can map the regions anciently inhabited by people long gone, by tracking the origins of the place-names. For example, Athens—or *Athēnai*, as the Greeks call it—has been a principal city of the Greek-speaking world for thirty-five hundred years or more, but the name itself belongs to yet earlier non-Greek inhabitants, as do the names of several hills in the vicinity, such as Hymettos and Lykabetos. These form part of a large group of names ending in *-ttos* or *-ssos* that can be traced to the Minoans and that had their maximum extent just before 2000 B.C. Similar tracking of place-names has shown that the Baltic branch of Indo-European, now confined to two pocket countries along the shores of the Baltic Sea, Latvia and Lithuania, once stretched eastward past Moscow almost to the Urals, a huge area curtailed many centuries ago by the expansion of the Slavs. The locations of the seaweed piles of old names tell the story.

In Xinjiang we can do the same. As we've said, the word *Xinjiang* itself (a slightly newer form of *Sinkiang*) is simply the Chinese for “New Territory.” That tells you something about history right there. Most of the local place-names are not Chinese but transparently Turkic—Qum-därya (Sand River), Quruk-därya (Dry River), Quruk-tagh (Dry Mountain), Kara-Shahr (or Qara-shähär, Black Town), Qara-qash (Black Jade), Qizil (Red), Yangi-bulaq (New Spring)—or Chinese renditions of same (e.g., *Kezi'er* for Qizil). Sometimes the Chinese versions lead to comic effects, as when the Turkic river name Kōnchi became the Kongque He, which means “Peacock River” (*hé* is “river” in Chinese), although no peacock—a forest bird from far to the south—could live in the dry wastes through which this river flows. Other names predate the Turkic layer, going back to Tokharian (Qilian, Kunlun), or to . . . to what? Plenty of names still remain to be explicated, old names like Kroraina, Cherchen, and Lop.<sup>4</sup> As in Greece, we may have a residue unassignable to any

<sup>4</sup>Two groups have laid claim to *nor*, the second half of *Lop Nor*. *Nor* is Mongol for “lake” and occurs as part of many lake names in Xinjiang and other parts of Central Asia, while *nur* is Uyghur for “bright” (as in the white of the salt flats). Mongol probably wins this one. But *lop* is opaque in both languages and in Chinese too, a fact suggesting that the name goes back to a time before Turks, Mongols, or Chinese had entered the territory.

known language, possibly the last shadows of ancient languages that died out in prehistoric times. If one of these residues known from a cohesive group of place names spreads over exactly the same territory as one of the prehistoric cultural areas known from archaeological digging (as was the case with the *-ssos/-ttos* names in the Aegean area), then we have strong evidence that the people of that early material culture spoke that language.

Thus, in various ways, the study of place-names—toponyms—can be very profitable for mapping where speakers of bygone languages lived at one time. It has yet to be done systematically for the Tarim Basin—a lengthy job—but clearly it will yield interesting information.

Place-names are not the only kinds of words that go on loan. People also borrow words for new objects and ideas. Again, it's generally easier to borrow the words right along with the new items than to think up brand-new vocabulary. Consider, for example, all the words for foods that we've borrowed into English: *pizza*, *spaghetti*, and *ravioli* from Italian; *hamburgers*, *wiener*, *pretzel*, and *sauerkraut* from German; and all of *gourmet cuisine*—from *soup* to *salad* and *sauce*, from *entrée* to *dessert*—comes from French. It's easier just to adopt the term *filet mignon* than to say "a steak cut crossways from that tender muscle that runs down next to the spine." Because of the Norman French invasion of England, French left the largest "seaweed piles" of borrowed words in English—some 60 percent of our vocabulary. We even borrowed words like *beef*, *pullet*, and *venison* for culinary purposes although we already had the native words *cow*, *hen*, and *deer*—words now, but not originally, limited to the live animals.

It is by digging through this sort of borrowed vocabulary, to deduce who got what from whom, and when and why, that we have a chance of extracting letter fragments out of the pockets of our prehistoric mummies. We can do this difficult trick if we can locate a group of *borrowed* words corresponding to *new* elements in a craft for which we have material remains. Then we can equate the lenders of the new technology with the lending language.

For example, we have noted that the Chinese borrowed a sizable cluster of words to do with wheels and chariots; they encountered a new and highly useful technology among their neighbors and borrowed both the technology and the words connected with it. We know from linguistics that those words came from Indo-European sources, and we know from archaeology that the peculiar art of making spoked wheels (and with them a chariot light enough to be drawn by fleet-footed horses) was developed at the western end of Asia, in the vicinity of the southern Urals, during the third and early second millennia. We know too that this wave of technology entered China in the mid-second millennium

B.C. Such information indicates that the Chinese learned chariotry from speakers of Indo-European languages.<sup>5</sup>

That's China; but what about the Tarim? We know nothing yet of how these early people lived, almost nothing of their houses or implements. Words to do with architecture and transportation therefore can't help us, and the people put little into their graves except the clothes they wore.

But textiles and clothing can tell many tales. Our English words for basic textile activities like *weave* and *sew* are very ancient, coming straight down to us from proto-Indo-European (fig. 6.4), whereas terms like *felt*, *crochet*, *mantle*, and *sombrero* we borrowed from various sources along the way. Ancient Greek inherited from proto-Indo-European the simple terms for weaving on the most primitive of all looms, the narrow band loom, but borrowed the entire vocabulary needed for weaving on the large loom of early Europe, the warp-weighted loom. Such stratification is as clear as any on a good archaeological dig.

The early folk of Loulan seem to have *introduced* weaving into the Tarim Basin. Since useful technology tends to run downhill like water, from the more developed practitioners "down" to the less developed, anyone ignorant of weaving who came into the Tarim later than the Loulan folk would soon learn the craft from them, words and all. By the same token, later local weavers ignorant of how to produce a skillful newcomer's attractive fabrics and styles would likely borrow the new methods, words and all. Clothes in particular constitute our oldest material signs of social status and identity.

Fragments of whatever language the early Loulan settlers brought into the Tarim along with the first weaving technology could therefore show up in the textile vocabulary of other languages attested there later. Likewise, the improvements we noticed at Cherchen may have left linguistic marks. Thus if Tokharian speakers carried into Central Asia the first knowledge of weaving, or brought later the more sophisticated techniques of weaving and dyeing that we saw at Cherchen, then Tokharian textile words expressing these innovations should turn up in the "seaweed piles" of borrowed textile terms in the languages

<sup>5</sup> Much of this method's power comes from the existence of *many* words associated with one another in meaning—the more the better. Working out etymologies is so fraught with interlocking difficulties that a linguist, no matter how diligent, may happen to be wrong about single words. Some unreconstructable chance event may have knocked one form askew. But linguistic reconstruction works on the basis of sets of regular *correspondences* (see fig. 6.4), so the more words we have at our disposal, the harder it is to get fooled about the whole group. We may not wish to stake our lives that, for example, Chinese *guǐ* "wheel axle end" came from Indo-European, though it probably did. But there is no doubt whatsoever that a sizable chunk of ancient Chinese vocabulary came from Indo-European—not just to do with chariotry, but also in architecture, divination, healing, and other matters.

that we know came in still later, such as Turkic (especially Uyghur) and Chinese. Conversely, if piles of borrowed textile words indeed turn up but aren't Tokharian, then we can surmise that the early inhabitants spoke other languages.

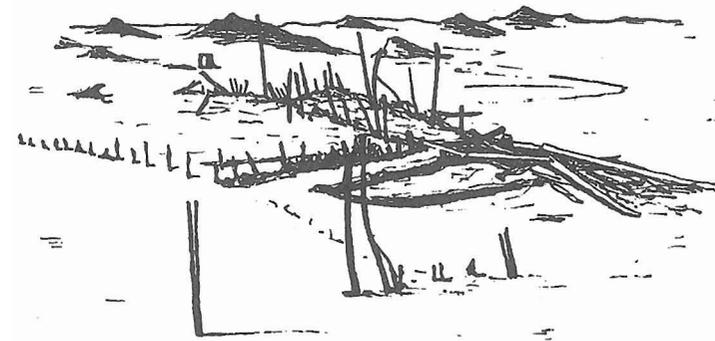
On the other hand, the words for felt and feltmaking should show a different history. Nomadic herders in the steppe zone north of the Tarim Basin specialized in making felt, not in weaving, and they used their felt for everything from house walls and flooring to dinner plates and clothing. Only when something had to have tensile strength (like straps) or softness (like undershirts) did they sometimes turn to weaving. Better yet, they often bought the woven material from their neighbors to make up as needed.

As on the steppes, the early textiles of the Tarim consisted of wool. Yet after analyzing the ancient cloth brought back to Sweden by Hedin's expeditions, Vivi Sylwan remarked that for all their skill at weaving wool the prehistoric Loulan people made pretty indifferent felt—not at all like true nomads. So of the two ways of making cloth, weaving was apparently the older and more comfortable technology among these people when they entered Central Asia from the west. Parallel to this, the Indo-European languages as a whole share their basic word for weaving (see fig. 6.4), but only a few of the Indo-European subfamilies acquired words for felt and they seem to have done so after the proto-Indo-European community broke apart.<sup>6</sup> Such correlations make some form of Indo-European look increasingly probable for the earliest Tarim settlers, though not yet proven.

We may not have enough of the particular textile words we need to do such a study on Tokharian. Our Tokharian manuscripts consist mainly of random scraps of translated Buddhist literature and shreds of local business dealings—not a good cross section of the total vocabulary. But we do have a few relevant terms, including a clearly Indo-European word for “weaver” (*wawāttsa* or *wapāttsa*, cognate with English *weave*, *web*—see fig. 6.4). So we know the Tokharians came to the Tarim Basin with an ancient knowledge of weaving. Indeed, Tokharian itself may show interesting loans, telling us something of where its speakers had wandered and who taught them.

Of all the waves of cloth technology that swept into the Tarim Basin, however, none carries more intriguing mysteries than the textiles worn by a group of mummies from near Hami (Qumul), three hundred miles northeast of Loulan. Although these graves are roughly contemporary with the Cherchen

group (if we may believe the present dating), time and weather have abused the bodies rather more. But the cloth has survived quite well enough to show an uncanny resemblance to a series of textiles of the same age from central Europe, woven by ancestors of the Celts—fellow Indo-Europeans from the other end of Eurasia. To these textiles and their implications we will turn next.



NIYA XV

<sup>6</sup>The picture is confused by the fact that Greek, Latin, and Germanic seem to have borrowed many textile words (including the ancestor of English *felt*) from a common source. As a parallel, the term *Coca-Cola* is found in almost every language of the world today, but in every case it's only a recent borrowing from a common source, *not* a word inherited in common from a tongue spoken in the Stone Age.

*The*  
MUMMIES  
*of*  
ÜRÜMCHI



*Elizabeth Wayland Barber*

*W. W. Norton & Company*

*New York • London*

Copyright © 1999 by Elizabeth Wayland Barber

All rights reserved  
Printed in the United States of America  
First Edition

For information about permission to reproduce selections from this book,  
write to Permissions, W. W. Norton & Company, Inc.,  
500 Fifth Avenue, New York, NY 10110.

The text of this book is composed in Sabon  
with the display set in Cochin  
Composition by ComCom, Inc.  
Manufacturing by The Courier Companies, Inc.  
Book design by JAM Design

Library of Congress Cataloging-in-Publication Data

Barber, E. J. W., 1940—  
The mummies of Ürümchi / by Elizabeth Wayland Barber.  
p. cm.

Includes bibliographical references and index.

ISBN 0-393-04521-8

1. Mummies—China—Sinkiang Uighur Autonomous Region. 2. Bronze  
age—China—Sinkiang Uighur Autonomous Region. 3. Textile fabrics,  
Prehistoric—China—Sinkiang Uighur Autonomous Region. 4. Tarim Basin  
(China)—Antiquities. 5. Sinkiang Uighur Autonomous Region. (China)—  
Antiquities. I. Title.

GN778.32.C5B37 1999

393'.3—dc21

98-18958  
CIP

W. W. Norton & Company, Inc., 500 Fifth Avenue, New York, N.Y. 10110  
<http://www.wwnorton.com>

W. W. Norton & Company Ltd., 10 Coptic Street, London WC1A 1PU

1 2 3 4 5 6 7 8 9 0

Frontispiece: This reconstructive portrait of the Loulan Beauty shows the woman shown in plate 9 wearing her hide skirt and moccasins, her shaggy woolen blanket wrap fastened at the shoulder with a long wooden pin, and her feathered felt hood. She is winnowing wheat with her winnowing tray, while the wheat basket and comb found with her lie by her knee. Grazing in the background are some woolly sheep at the Bronze Age stage of development, portrayed on the basis of Soay sheep (a breed abandoned on islands off the coast of Scotland by Bronze Age farmers and corresponding to the fleece type known from Bronze Age textiles). Ephedra bushes appear in the middle distance. Illustration by Kelvin Wilson, Rotterdam.

ing tray, while the wheat basket and comb found with her lie by her knee. Grazing in the back-  
ground are some woolly sheep at the Bronze Age stage of development, portrayed on the basis of  
Soay sheep (a breed abandoned on islands off the coast of Scotland by Bronze Age farmers and cor-  
responding to the fleece type known from Bronze Age textiles). Ephedra bushes appear in the mid-  
dle distance. Illustration by Kelvin Wilson, Rotterdam.