BOOKS & ARTS

The making of Britain

Who are the "amphibious ill-born mob" who gave rise to the British nation?

Homo Britannicus: The Incredible Story of Human Life in Britain

by Chris Stringer

Allen Lane: 2006. 320 pp. £25

The Origins of the British: A Genetic Detective Story

by Stephen Oppenheimer

Constable & Robinson: 2006, 534 pp.

Blood of the Isles: Exploring the Genetic Roots of our Tribal History

by Bryan Sykes

Bantam Dell: 2006, 400 pp. £17.99. Published in the US as Saxons, Vikings, and Celts. W. W. Norton: 320 pp. \$26.95

Clive Gamble

Who do the British think they are? The nature and future of Britishness has always been high on the political agenda. Who better than Daniel Defoe, author of Robinson Crusoe, to characterize their island condition; Celts, Romans, Saxons, Normans and Vikings, "From the amphibious ill-born mob began/ That vain ill-natured thing, an Englishman". Not surprisingly, Britain's chancellor of the exchequer, Gordon Brown, sees positive values for the nation's post-imperial legacy in the "long tidal flows of history — from the 2,000 years of successive waves of invasion, immigration, assimilation and trading partnerships. In a speech earlier this year he argued that the distinctive set of values these flows produced will enable Britain to seize the opportunities of globalization because the nation is "stable, outward-looking, committed to scientific progress and the value of education".

National character is important but its cultural and biological roots are notoriously open to political manipulation. The question is, where beneath the rallying flags of nationalism, patriotism and ethnicity can we find common ground for science and education to meet without undue controversy? Certainly not in the cultural field, where the movement of peoples is concerned. Without a whiff of irony for an American living in London, the poet T. S. Eliot declared in 1948 that "it would appear to be for the best that the great majority of human beings should go on living in the place where they were born". Eliot's point was that cultural strength came from local tradition. He went on to say that it was fine when whole prehistoric tribes moved and so transposed their cultures



Ancestral home: Europe's landscapes gave rise to Neanderthal (left) and Cro-Magnon man.

wholesale. It was the piecemeal movement of individuals and cultures that offended him, and this continues to resound in today's debates on immigration and asylum seekers.

Eliot and Defoe would have taken little comfort from these three books on the earliest inhabitants of Britain. But I hope that Brown will, although their conclusions have significant policy implications for Britishness that I will return to later.

Homo Britannicus takes us furthest back in time. In an excellent and engaging account of the Ancient Human Occupation of Britain Project, which he masterminded and leads, Chris Stringer of the Natural History Museum in London starts 800,000 years ago, when Britain was neither an island nor inhabited. The Thames was a mere trickle, and the major river, the now vanished Bytham, flowed out to sea north of present-day Ipswich. It was along that coast at Happisburgh and Pakefield that the project's researchers, helped by local residents, discovered and excavated some stone tools. Their discoveries added almost 300,000 years to the history of Britain.

Then came the massive Anglian glaciation that buried the Bytham and pushed the drainage south to the Thames. With the aid of beautiful illustrations, Stringer charts the many

arrivals to Great Britain, this large peninsular of northwest Europe. These included Homo heidelbergensis, Neanderthals and eventually modern-looking humans about 40,000 years ago. He skilfully weaves together the archaeological and anatomical evidence with the global picture of human evolution and climate change. The book is a triumph, communicate change. The book is a triumph, communicating the trials and thrills of scientific research across many disciplines to provide answers to the coevolution of environment and people.

But are the ancestors under the Homo Britannicus umbrella that common ground where science and education can meet? Stringer provides the basal strata, and the authors of the two other books under review use genetics to reconsider the varied contributions of Defoe's "amphibious ill-born mob". The Origins of the British by Stephen Oppenheimer is particularly illuminating. The author carefully lays out the genetic data that show how three-quarters of Britishness dates to the repopulation of the peninsula 15,000 years ago, after the northern ice sheets last retreated. This was long before agriculture, and millennia before rising sea levels made us into 'little Britain'. These influential ancestors were hunters and gatherers, and the genetic data trace their movement from Iberia along a seaboard route to western Britain; there was also a smaller influx into England from northern Europe. Once he has established this fundamental east-west divide, Oppenheimer takes us through a fascinating investigation of what this means for some cherished notions of Britishness. He shows that Old English was indigenous, not imported by the Saxons, and shows how unimportant the Vikings are to the story. He is kinder to the Celts, providing

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evidence that the recent debunking of them as a nationalist myth has gone too far. His chief input to the Britishness debate is that biologically and culturally, the Anglo-Saxons were not the first English nation.

Bryan Sykes agrees. In Blood of the Isles, a shorter and less well-illustrated volume supported by a website, he reports on the Oxford Genetic Atlas Project. The added interest is his account of racist scientists such as Robert Knox, who distinguished between the hard-working Anglo-Saxons and the indolent Celts on the basis of hair colour and head size. Sykes is particularly good at demolishing these repugnant myths with his genetic data, although I was alarmed by his impudent claim that "my art is oblivious to the prejudice of the human mind". Historical genetics is just as much an interpretation for its time as the shape of skulls was in the nineteenth century.

So, where does all this leave Britishness? As Sykes says, "this really is the history of the people, by the people". We carry our past in our genes and, as Oppenheimer shows, if we are looking for that common ground where science and education meet, then it was 15,000 years ago when small groups of highly mobile hunters entered a postglacial wasteland. Getting there first, rather than in large numbers, is the key to the dominance of these founders in our British genes, and this applies to both women (mitochondrial DNA) and men (Y chromosome). Gordon Brown's Britishness needs to be extended back by at least 13,000 years from the familiar world of Celts and Romans to consider those who contributed most to our common heritage. A further 700,000 years needs to be added if we are to

Treasure islands



The Socotra islands, in the Arabian Sea off the Horn of Africa, are home to many plant and animal species found nowhere else, including the Socotra sunbird shown here. First settled by man several thousand years ago, this unique environment is populated by a small group of fishers and pastoralists. In 2003,

Socotra became a UNESCO Man and Biosphere Reserve. Socotra: A Natural History of the Islands and their People by Catherine Cheung and Lyndon DeVantier (Socotra Conservation Fund/Odyssey, £39.50) is the first full natural history of the flora, fauna and people of these islands.

understand the full evolutionary picture.

And what is the policy implication? This concerns an overhaul of the UK national curriculum, where presently the debate on British identity starts with the Middle Ages. As a result, education is being denied access to scientific progress.

These three books show why we can no

longer ignore our earliest ancestry in deciding who the British think they are. It is time to celebrate those first economic migrants, because that is who we are.

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A physics travelogue

From Clockwork to Crapshoot: A History of Physics

by Roger G. Newton Belknap Press: 2007. 352 pp. \$29.95, £19.95, €27.70

David Lindley

If you have just an afternoon to spare for your first visit to the British Museum in London, you have a choice to make. You can trot smartly up and down the corridors, trying to glimpse as many items as possible, or you can choose to linger thoughtfully in a handful of rooms, hoping to absorb a sense of the entire collection's scope. In his role as tour guide to the complete history of physics, Roger Newton seems to have had trouble deciding which strategy to adopt. Sometimes he pauses to reflect on the meaning and significance of the most crucial exhibits; at other times he seems determined to march briskly down the centuries, ticking off names and discoveries great and small with bewildering haste. As a result, the truly

interesting perspectives that he points out along the way get lost in the confusion.

From Clockwork to Crapshoot begins by defending Aristotle against the bad press he sometimes gets in histories of science. While Plato mused abstractly about the ideal nature of things, Aristotle turned his attention to the 'efficient causes' of empirical phenomena — meaning, in a nutshell, that if something happens, there must be something else that makes it happen. That is a modern philosophy of science, but in his specifics, Aristotle was mostly wrong. It was medieval scholars, rediscovering Aristotle from Arab writers, who treated his writings as a revealed truth, insisting on scrupulous adherence to his incorrect explanations but failing to grasp his style of reasoning.

After dropping in on Roger Bacon, William of Ockham and Nicole Oresme, we're onto Copernicus, Galileo, Kepler and Newton—the beginning of science as we now understand the term. This is familiar territory, and

although the author's travelogue is fluent and intelligent, the narrative interest starts to flag. With the basic method of science settled, the story is one of advancing enlightenment on many fronts, and our guide is determined to give at least a brief wave to everyone who contributed. Taken individually, his sketches of Laplace, d'Alembert and Gauss, of Henry, Faraday and Maxwell, and of Rumford, Joule and Clausius, are engaging enough. Thrown at the reader one after the other, they become rather wearisome.

The story picks up again when the author tackles the emergence of statistical mechanics and then quantum mechanics. As the book's title suggests, the evolution away from strict determinism into a world governed by laws of probability marked a tectonic shift in the foundations of science. Quantum theory raised questions about the meaning of physical reality that remain unresolved today. And of late, Roger Newton suggests, Plato is staging a comeback against Aristotle. Now that we have a pretty good understanding of how electrons and other particles behave, we are returning, in attempts to find a 'theory of everything', to the deeper problem of understanding why