## Who we are and where do we come from

A compelling story of new DNA findings, tracing the people of India from prehistory to near history

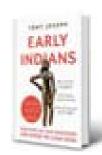
SUJATHA BYRAVAN

etween 45,000 and 20,000 years ago, most of humanity lived in South Asia, reflecting the unmatched population expansion of people living in the region. This and other fun facts are scattered throughout the thrilling account of our past by Tony Joseph in Early Indians.

By interpreting the palimpsest of the human genome, population geneticists have made rapid progress recently and traced the migration of early humans out of Africa and into distant lands across the earth. Corroborations from anthropologists and philologists, who have independently written some parts of this story, now make it possible to make more definite claims regarding the waves of homo sapiens that migrated out of Africa (OoA). The first OoA migrants emerged around 70,000 years ago. About 5,000 years later their descendants reached India and faced archaic humans living here already. Waves of these OoA migrants also reached parts of central Asia and Europe between 60,000 and 40,000 years ago. Early Indians came to India over time from Africa, West, East and Central Asia. Homo sapiens or 'wise man' has been around for about 300,000 vears but humans still carry traces of Neanderthal DNA in their

Who were our forefathers?

Geneticists have for a long time been using the DNA in the nucleus of cells to identify specific shared DNA sequences, or haplotypes



Tony Joseph Juggernaut

and haplogroups – when these are shared in sub-populations. These shared sequences can be traced and also compared with DNA from other individuals either living or dead in different geographical areas. This is how many African Americans try to identify the places in Africa and elsewhere from where their forefathers came. But, more recently population geneticists have also been using DNA from mitochondria – intracellular powerhouses that have their own DNA and can be traced in the maternal line.

The DNA in the Y chromosome can similarly be used to trace sequences inherited from the father or the male lineage, since the Y chromosome is present only in men. These approaches have yielded a wealth of results since it is mostly men who migrated from one place to another and passed on their Y-chromosome to their sons when they mated with local women. DNA from skeletal remains is revealing new stories about our past, our relationships



Civic lines: Dholavira in Gujarat has emerged as a major Harappan city remarkable for its town planning, architecture and water management system. • AFP

Joseph writes a compelling storv about these findings and traces the people of India from prehistory to near history. It is an astonishing tale, difficult to put down, but dense given the amount of detail it covers. Following a short chronology of the modern humans in Indian Prehistory, the book has four chapters along with an introduction and epilogue. These narratives of population genetics, deftly interwoven with archaeological research and philology, are about the following: the first Indians, the first farmers, the first urbanites or the Harappans, and the last migrants or the Aryans.

**Out of Africa** 

Each chapter presents many interesting storylines. For example:

Although from the same single OoA migration, our ancestors likely reached different areas of the Indian subcontinent at different times.

The earliest Palaeolithic tools in India are from Attirampakkam in Tamil Nadu dated to around 1.2 million years ago. But the earliest microliths, small stone tools used by modern man, dated to 45,000 years ago, were found in Mehtakheri in the Nimar region in Madhya Pradesh. It was possible to trace the spread of humans through central and eastern India from around 45,000 to 35,000 years ago, by following the mitochondrial haplogroup M.

Towards the end of this spread, the world was entering full glacial conditions, but new microlithic innovations most probably helped modern humans to hunt, increase their numbers, and overcome the adverse climate and archaic humans who had already been in the subcontinent for hundreds of thousands of years.

Another example: There is evidence of early agriculture, probably by the first Indians, in the Mehrgarh, Balochistan region from around 7000 BCE.

Evidence for migration of agriculturists from the Zagros region of Iran into this area is available and one can see signs of their genetic markings in the Indian population even today.

The Harappan civilisation was like none other in a large number of ways and covered close to a million square kilometres. With very precise town planning, public infrastructure, storm water drains and sanitation, it had the region's first urbanites who were also trading with people of central Asia. With changing climate and deteriorating conditions, Harappans moved out, some of them southwards, where they interacted with people in South India and formed the Ancestral South Indians. Just as the Harappan civilisation was beginning to collapse, there was an influx of people from the east into India.

Significantly, by about 2000 BCE, critical aspects of India's population were already in place. Combining evidence from Y-chromosome haplogroups from the Steppes of Kazakhstan, conducting genome wide analyses and correlating these with archaeological discoveries indicates that between 2000 and 1000 BCE, multiple waves of migration from the Steppe pastoralists brought new European languages, cultural and religious practices that changed the people of South Asia forever.

This book is excellent science journalism, the kind that we need more of in other disciplines. Following the DNA sleuths and their stories is hardly a simple task. Ideologues of racial superiority may likely not agree with these or other scientific findings about evolution or human migrations.

But since it is impossible to disprove non-science, there is no point in wasting one's energies to do this. Instead, now that we have an understanding of our histories, perhaps what Indians needs to focus on is where they and their country are headed.

**BOOKSHELF** 



Mountain Rivers and Monsoons have Shaped South Asia's History Allen Lane/ PRH

The story of South Asia is told through climate, how its fate is bound to its position between the Himalayas and Indian Ocean. It's about fires, droughts, rains, rivers, and the history of how the importance of geography to the region was discovered. Amrith also discusses the future of the region.



Every Vote Counts: The Story of India's Elections Navin Chawla HarperCollins India

The challenges before the **Election Commission are** many: How does one conduct free and fair elections? How does one hold elections in Maoist areas or in Jammu and Kashmir? How reliable are electronic voting machines? A former chief election commissioner tells us how the daunting task of conducting the largest electoral exercise in the world is undertaken.

## Conflict zone

A journey to the LoC on each side reveals the plight of civilians and why both India and Pakistan are to blame

A.S. DULAT

f Spy Chronicles, written by two spy chiefs together, that too an ■Indian and a Pakistani, was improbable, so too is Happymon Jacob's entry into the sanctum sanctorum (GHQ) of the Pakistan Army or his unprecedented access to the line of control on the other side. No wonder, in his latest book, Line of Control, Jacob calls it "the most gripping and adventurous journey" of his life. The Line of Control (LoC) is more

than a researcher's dull academic exercise; it is at once moving and sometimes funny with unforgettably colourful characters who light up the narrative. Those of us who have served in Jammu & Kashmir have a fair idea of what is transpiring on our side so it's hardly surprising that when Lance Naik Hemraj was beheaded, a Cabinet Minister with knowledge of the border remarked that both sides indulged in such activities. But Jacob has an advantage as he could research "ceasefire violations from the other side as well."

#### **Oppressive nationalism**

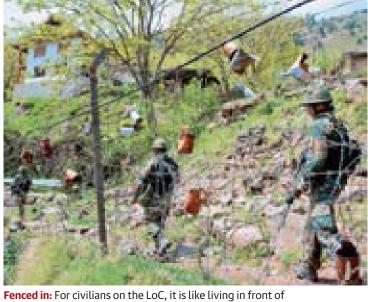
The LoC is an assumed, notional line not demarcated on the ground. "What India means in New Delhi," says Jacob, "is poles apart from what it is to a person living 100 metres from Pakistan." The Indian state appears to be present only through the barrel of the gun. Nationalism feels oppressive and compromises patriotism. There are villages that have been cut in half and the LoC runs through some houses.

As Jacob says, for civilians on the LoC, it is like living in front of a firing squad. In a standoff like this, there are no saints. Civilians are the biggest casualty on both sides. There are generations who have lived and died on the border with no other option. They are the sacrificial lambs of our respective national pride and prejudices.

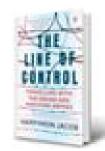
The LoC then is one of the most dangerous places on earth which marks the collective failure of both India and Pakistan. If a Kashmiri is always wary of tension between India and Pakistan how much more deadly is it for those inhabiting either side of the LoC?

#### Midnight calls

Jacob's visit to Lahore is interesting and there are repeated references to the "midnight calls" and uninvited visitors to the Pearl Continental Hotel where he is put up, pointing at "the dark underbelly of Indo-Pak relations." Pakistan surveillance has always been aggressive and hence counterproductive as an intelligence tool whereas New Delhi, as



a firing squad. • NISSAR AHMAD



■ The Line of Control: Travelling with the Indian and Pakistani Armies Happymon Jacob Penguin/ Viking

Jacob puts it, is "not all that spook

Much of the book is classic Jacob territory: Pakistan and Kashmir. He believes that peace between India and Pakistan is in our national interest. Despite being tailed on a daily basis, Lahore signifies everything he loves about Pakistan.

#### Welcome change

He is at his best while describing the city whose lanes and bylanes remind him of Old Delhi – happening and welcoming. He is welcomed by Pakistan's 'Deep State' and treated as a special guest by the military. Somewhere he regrets that alcohol was not easily available in Pakistan but the three nights he spent with Ambassador Aziz Khan in Islamabad would have provided him his fill of nectar apart from all the beer he had with his 'fauji' friends.

The affable Aziz Khan, who was posted in Delhi at a crucial time during Gen. Musharraf's tenure, regrets how he missed the bus on Kashmir. As he puts it, "between India and Pakistan you can never tell what might happen tomorrow... If only the leadership showed more Between India and Pakistan you can never tell what might happen tomorrow... If only the leadership showed more courage

courage." General Musharraf was by far the most reasonable Pakistani leader on Kashmir in the last 30

#### Making it happen

Operation All Out will no doubt have its success but as Prime Minister Erna Solberg of Norway and her predecessor the former Prime Minister Bondevik said during their visits to India, there can be no military solutions to such problems. As Jacob rightly says such chances just don't come by - if you are determined enough you must make them happen. Pakistan sadly remains in denial about terrorism and cross-border infiltration, limiting its repeated references to Kashmir to self-determination which the Kashmiri understands is well beyond his grasp.

Jacob's connections took him to the LoC and other inaccessible areas including the very 'top' in Pakistan – as close as 25 metres from where power flows there.

The GHQ, he says, conveyed a sense of imperiousness and power. The Army, which is ruthlessly professional, has a pride of place in Pakistan. As the first Indian to enter the sanctum sanctorum, including the office of the Chief of General Staff who runs it, this is the ultimate intellectual pilgrimage. If you have been there you have almost seen it all in Pakistan. Jacob's honest portrayal is a must read for those interested in Kashmir and the India-Pakistan relationship.

# Dissenting voice

A critique of the Modi government falls short on analysis

KANDASWAMI SUBRAMANIAN

✓ashwant Sinha is angry over I the economic management of the Narendra Modi government. In his early years, Sinha was a socialist and a Finance Minister in Chandra Shekhar's cabinet. In time, he moved over to the Bharatiya Janta Party (BJP) and served in the Vajpayee government as Finance Minister for four years and as Foreign Minister for a year. A loyal BJP acolyte, he has all the credentials to critique the policies of his government in India Unmade. But

with the BJP coming to power, "India was blessed with a singleparty government after three decades. Hopes soared, aspirations rose sky-high, and every section of the population looked forward to a new dawn."

He laments how "the elusive dawn never materialized... and hope turned into despair, despair into anger and anger turned into rage" among farmers, youth, Dalits, minorities. Overall, the essence of his charge is this: "The Modi government is



■ India Unmade: How the Modi Government Broke the Economy Yashwant Sinha with Aditya Sinha Juggernaut

just about event management. As he says in a dramatic vein, He is the best in creating false impression. In the process, Modi has given India its 'lost halfdecade'." Critics of the Modi government may agree with this summation. However, it is difficult to say that the detailed narration in the eleven chapters (plus an epilogue) lends support

For instance, Sinha has a pathological aversion to demonetisation. He feels that it has "unmade" India. There are references to demonetisation in every chapter: but these are more

in the nature of assertions rather than analysis-based conclu-Sinha appears to be still dri-

ven by his experience while he was Finance Minister in the Vajpayee government. He fails to reckon that the global scenario is vastly changed and there are limits to and doubts about investment-driven policies. But his treatment of "make in

India" policies is sound and explains how it serves more to attract foreign direct investment. Where Sinha proves his loyalty to the BJP is in dealing with the various Pradhan Mantri schemes, he approves of most barring Swachh Bharat. And he entirely leaves out larger issues such as autonomy of institutions, spreading majoritarian and divisive policies, beef killings.

This book falls between two stools: it is neither an economic treatise, nor a political pamphlet. It seems to have been written in a hurry revealing the absence of inner democracy in the BJP which would have learnt a few lessons from the recent elections in the Hindi heartland.

Orient BlackSwan Aadhaar, India's unique identity system, was

Dissent on Aadhaar: Big Data Meets Big Brother

Edited by Reetika Khera

introduced in 2009 with the purpose of creating a more inclusive welfare system. Hundreds of people were enrolled into the biometric database, making it compulsory for social benefits. This book argues that the project opens doors to immense opportunities for government surveillance and commercial data-mining.



Parties and Electoral Politics in Northeast India: Contention of Ethno-regionalism and **Hindu Nationalism** V. Bijukumar Kalpaz

The book is a collection of articles on elections and the performance of political parties in the States of Northeast India. It is also an attempt to highlight the trajectory of politics from ethno-regionalism to Hindu nationalism. After the 2014 general election, Hindu nationalist politics assumed centrestage.



■ The Age of Awakening: The Story of the Indian Economy Since Independence Amit Kapoor with Chirag Yadav Penguin Random House

The economic path that India chose post independence is often questioned and criticised for its lacklustre growth outcomes which led to a crisis in 1991. Since then India has shifted gears. This book tells India's economic story since independence and of the men and women who played a role.

### Words on Manto

Contemporaries on the *enfant terrible* of Urdu literature

RAKHSHANDA JALIL

If you want to read a festschrift with a difference read Manto Saheb. If you want to know how Manto's contemporaries and fellow writers viewed the maverick in their midst this collection of essays provides multiple mini biographies of a complex, troubled man, one might even say a mad genius. Manto himself has left behind several biographical sketches of his friends and foes – some jewel-bright in their luminosity, others darkly witty or sharply satirical; some are to be found in the evocatively titled Ganjey Farishtey ('Bald Angels'), others scattered amongst his vast and varied oeuvre and occasionally buried in the forewords he wrote for some of his own books.

Provocative, outrageous, scandalous, occasionally blasphemous, always ready to cock a snook at society, literary norms and most notions of propriety, Manto revelled in being the original enfant terrible of Urdu literature. Seldom shy of airing his views on fellow writers, it is no wonder that those around him thought fit to air theirs as well with varying degrees of



■ Manto Saheb: Friends and **Enemies on the Great** Translated by Vibha Chauhan, Khalid Alvi

**Speaking Tiger** 

frankness, occasionally also with little regard to literary propriety such as Upendranath Ashk's Manto Mera Dushman (Manto, My Enemy).

Some of the essays included here were written in response to Manto's 'first strike', others spring from deep wells of affection, even love such as Ismat's tribute to her friend after his death. Krishan Chandar's elegantly sprawling reflection is by far the most insightful. After a description of Manto's physical form, he notes: 'Exasperation clearly writ on a face which reflects a singular kind of sophistication and refinement. An edgi-

Two personal essays bookend the others by contemporaries: Ibrahim Jalees, Muhammad Tufail, Ahmad Nadeem Qasmi, Bal-

ness in the voice. A restlessness

to write. A kind of bitterness in

behaviour. And hasty steps.'

want Gargi, among others. The first is, appropriately enough by Manto himself writing with an almost schizophrenic detachment about the other Manto, his twin, the one with an 'erratic mind', the one who 'refuses to walk the straight path'. The last by his nephew, Hamid Jalal, is empathetic yet completely unsentimental. Praise

from Ali Sardar Jafri, that eluded

Manto while he lived, comes in

the form of a bitter-sweet tribute

entitled 'The Foul-mouthed Translated fluently by Vibha S. Chauhan and Khalid Alvi, the book would have benefitted with an Introduction and some

The 'Notes on the Contributors' and occasional footnotes are sketchy at best and, in one instance, contain a gross error for Ali Sardar Jafri did not preside over the first ever Progressive Writers' Conference; that honour went to Premchand.

A ND-NDE