

## COLONIAL HISTORIES AND SILENCED VOICES: A SUBALTERN READING OF AMITAV GHOSH'S THE CALCUTTA CHROMOSOME

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### **Abstract:**

Amitav Ghosh's *The Calcutta Chromosome* offers a compelling narrative that subverts traditional scientific historiography by centring marginalised voices and challenging Eurocentric constructions of knowledge. This paper examines how Ghosh reimagines the history of science, specifically the discovery of the malaria parasite, through a postcolonial lens, highlighting the silenced roles of Indian subaltern figures in scientific advancement. By fictionalizing the life and work of Sir Ronald Ross, a British scientist credited with the discovery of the malaria transmission cycle, Ghosh questions the validity of colonial records and foregrounds the possibility of alternative epistemologies rooted in indigenous mysticism and experiential knowledge. The novel intricately weaves multiple timelines and characters, creating a counter-narrative that reclaims the agency of marginalized individuals like Mangala and Laakhan, who are portrayed as the true innovators behind Ross's celebrated findings. In doing so, Ghosh destabilizes the imperial logic that historically excluded colonized subjects from intellectual and scientific discourse. The text's genre-blending-mixing science fiction, detective thriller, and historical fiction further reinforces its resistance to dominant linear narratives. This study utilizes postcolonial theory, particularly the concepts of subaltern agency and counter-historiography, to explore how *The Calcutta Chromosome* critiques colonial authority and offers a revisionist history that honors the suppressed contributions of non-Western actors. Ultimately, Ghosh's novel becomes an act of narrative decolonization, revealing how history and science are not neutral but are deeply embedded in structures of power, voice, and erasure.

**Key Words:** Amitav Ghosh, *The Calcutta Chromosome*, Postcolonialism, Subaltern, Historiography, Science And Empire, Ronald Ross, Counter-Narrative, Decolonization, Indigenous Knowledge.

Amitav Ghosh is one of the most prominent contemporary Indian English novelists, celebrated for his intricate narratives that blend history, politics, science, and postcolonial concerns. Born in Calcutta (now Kolkata) in 1956, Ghosh was educated in India and later earned a D.Phil. in social anthropology from the University of Oxford. His academic training deeply informs his literary style, which often fuses archival research with imaginative storytelling. Ghosh's work frequently interrogates the relationship between history and narrative, especially in the context of colonialism, migration, and knowledge production. Novels such as *The Shadow Lines* (1988), *The Glass Palace* (2000), and the Ibis Trilogy (*Sea of Poppies*, *River of Smoke*, and *Flood of Fire*) showcase his commitment to recovering forgotten voices and rewriting dominant historical narratives.

In *The Calcutta Chromosome* (1996), Ghosh turns his focus to the history of science, blending speculative fiction with postcolonial critique. The novel reflects his broader literary ambition to "restore the lost link between the world of the past and the world of the future" (Ghosh 14). Ghosh's writing challenges rigid disciplinary boundaries and invites readers to consider how history, memory, and myth intersect. His contribution to literature has earned him numerous accolades, including the Jnanpith Award in 2018, India's highest literary honor. As a writer and public intellectual, Ghosh continues to engage with urgent global issues such as climate change, displacement, and the legacy of empire making his works both culturally resonant and intellectually provocative. "To restore the lost link between the world of the past and the world of the future is the great, the vast, the all-embracing task of the writer today" (Ghosh 14).

The colonial enterprise in British India was not limited to political and economic domination; it extended into the realms of medicine, science, and public health. Colonial medicine played a crucial role in the consolidation of imperial control, particularly through the establishment of sanitization policies and research institutions. As David Arnold notes, "medicine was not simply a benevolent gift of Western science to the colonized, but an essential part of the colonial project, reinforcing structures of dominance" (Arnold 5). Amitav Ghosh's *The Calcutta Chromosome* subverts this narrative by reimagining the origin of scientific knowledge as emerging from the margins, thus challenging the conventional Eurocentric historiography that portrays science as an exclusive domain of rational Western thought.

The presentation of human lives in all of their manifestations on a larger scale via language is called literature. Despite cultural, sociological, political, and geographic barriers, there are similarities in the content, style, concerns, and writing forms of twentieth-century literature from countries such as America, England, Africa, Australia, India, and the Commonwealth. The entire world appears to have become a single global village. Every practice and trend found in international literature is common (M. Kannadhasan 65).

Ronald Ross, the British doctor credited with discovering the transmission cycle of malaria, is a central historical figure in *The Calcutta Chromosome*. While Ross is celebrated in colonial records as a pioneering scientist, Ghosh reconstructs the narrative to show that indigenous figures, such as the silent and mysterious Mangala, may have orchestrated this discovery from behind the scenes. This revisionist approach questions the authorship and ownership of scientific knowledge. As Ghosh writes, Ross's "moment of discovery was not an epiphany of genius, but a moment made possible by an unseen collaboration" (*The Calcutta Chromosome* 104). By doing so, the novel not only fictionalizes but also problematizes colonial claims of scientific advancement by bringing the subaltern voice into focus.

The British Empire used science and technology not just for advancement but as a mechanism of surveillance and control. Through scientific rationalism, the colonial state categorized, mapped, and medicalized native bodies and landscapes. Surveillance technologies, like disease mapping and census-taking, were used to manage colonial subjects under the guise of progress. Amitav Ghosh's novel interrogates this notion by highlighting how indigenous knowledge was often appropriated and rebranded as Western discovery. As Pratik Chakrabarti observes, "colonial science was deeply intertwined with the asymmetries of power, legitimizing empire while marginalizing local epistemologies" (Chakrabarti 12). Ghosh's narrative resists this erasure by reconstructing a historiography where the subaltern not only participates but potentially leads the scientific process from within a different, non-Western framework of knowledge.

The Subaltern Studies collective, spearheaded by scholars like Ranajit Guha and later expanded by Gayatri Chakravorty Spivak, seeks to recover the voices and experiences of those marginalized in dominant historical narratives particularly colonial subjects who have been rendered voiceless by elite discourse. Spivak's seminal question, "Can the subaltern speak?" points to the structural silencing of the colonized, especially women, in both colonial and postcolonial historiography (Spivak 104). These scholars challenge Eurocentric methodologies and call for alternative ways of reading history from the margins. *The Calcutta Chromosome* engages with this framework by narratively repositioning subaltern figures-like Mangala and Lutchman-not as passive subjects of science but as agents of a hidden and powerful indigenous knowledge system.

Amitav Ghosh rewrites the history of science in *The Calcutta Chromosome* by centering those who were traditionally omitted from the colonial archive. Through speculative fiction, he constructs a shadow narrative that highlights how the apparent breakthroughs of Western scientists were facilitated if not directly orchestrated-by Indian subalterns. Mangala, a former sweeper-woman and seemingly insignificant figure, emerges as a central agent in the discovery of the malaria parasite's transmission cycle. As Ghosh writes, "She knew what she had to do. It was her knowledge, her method. She gave it to Ross... without ever letting him know" (*The Calcutta Chromosome* 110). This act of historical revisionism does not simply recover a lost voice it reconstructs an entirely new epistemic framework wherein silence, rather than speech, becomes the mode of resistance and agency.

Rather than adhere to Western scientific rationalism, Ghosh presents an alternate epistemology grounded in mysticism, secrecy, and embodied knowledge. This counters the Enlightenment ideals of visibility and explanation that underpinned colonial science. The novel's emphasis on silence as seen in the deliberate suppression of verbal articulation and written records becomes a strategy for subaltern resistance. As Ranajit Guha emphasized, subaltern agency often exists outside the logics of liberal historiography and can be expressed through "acts of refusal, disappearance, or inscrutability" (Guha 3). Ghosh's characters operate through such means, thereby maintaining control over their knowledge and ensuring it cannot be fully appropriated by colonial powers. The novel thus deconstructs dominant historiographies and reimagines history from the perspective of those traditionally denied authorship.

Amitav Ghosh structures *The Calcutta Chromosome* using a non-linear, fragmented narrative that mirrors the novel's thematic focus on fractured and suppressed histories. The temporal shifts between the future (Murugan's present), the colonial past (Ronald Ross's time), and the mysterious in-between realm create a palimpsest of narrative layers. This structure resists a conventional historiographical approach, favoring instead a mosaic that reveals the limitations of linear, colonial storytelling. As Ghosh writes, "It was like a jigsaw puzzle in which some of the pieces had been blanked out" (*The Calcutta Chromosome* 72), underscoring the intentional gaps left in official history. The novel blends science fiction, mystery, and speculative history, using genre hybridity as a tool to destabilize Western epistemological authority and offer space for subaltern narratives to emerge from the shadows.

Characters such as Mangala and Lutchman are crucial to the novel's rewriting of history. Mangala, a low-caste woman and spiritual healer, orchestrates a secret medical experiment that anticipates and facilitates Ronald Ross's celebrated malaria research. Her obscured presence from historical records symbolizes the systemic erasure of subaltern contributions. Lutchman, her devoted follower, serves as both messenger and guardian of this concealed knowledge system. These characters are not merely passive or symbolic they act as active agents of an indigenous counter-epistemology. Their use of silence, ritual, and secrecy functions as resistance to colonial modes of knowledge extraction. As the narrator remarks, "What if their silence was deliberate? What if it was the language of resistance?" (*The Calcutta Chromosome* 88). In this speculative framework, history is not something merely written it is encrypted, encoded, and protected by the very people it seeks to erase.

At the heart of *The Calcutta Chromosome* lies a profound critique of Western scientific rationality and its monopoly over truth and knowledge. Ghosh contrasts the Enlightenment-driven quest for empirical certainty with indigenous spiritual knowledge systems, which rely on intuition, ritual, and transmission through non-verbal means. The novel legitimizes these alternative epistemologies by depicting them as more effective and ethical in certain contexts particularly in the realm of medical discovery. The official scientific record, represented by Ross's accolades and recognition, deliberately omits the contributions of native collaborators, thereby silencing subaltern voices in the annals of progress. As Pratik Chakrabarti observes, "Colonial science often thrived on indigenous knowledge, while simultaneously discrediting its sources" (Chakrabarti 46). Ghosh's narrative revisionism restores these sources, not through direct documentation, but through myth, memory, and imagination, elevating marginalized ways of knowing to narrative legitimacy.

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