

# Religion and Myth in Amitav Ghosh's *The Calcutta Chromosome*

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## Abstract

Amitav Ghosh's *The Calcutta Chromosome* is a richly layered narrative that intricately blends elements of science, history, religion, and myth to construct a postcolonial meditation on knowledge, identity, and power. This paper examines how Ghosh interweaves religious symbolism and mythological motifs with scientific inquiry, particularly in the context of colonial and postcolonial discourses on medicine and discovery. By embedding mythic structures within a speculative historical frame, the novel challenges linear and Eurocentric conceptions of progress, instead privileging cyclical, secretive, and localized modes of knowing. Religious undercurrents—drawn from Hindu, Islamic, and indigenous spiritual traditions—are not merely decorative but function as epistemological alternatives to Western rationalism, allowing characters to transcend conventional boundaries between fact and belief. The narrative's engagement with myth serves as a tool for reinterpreting historical events, reconfiguring the story of Ronald Ross's malaria research into a counter-history that privileges the voices of the marginalized. Through this fusion, Ghosh subverts the binary opposition between science and superstition, proposing instead a syncretic

framework where spirituality and empirical knowledge coexist and inform one another. The paper argues that religion and myth in the novel serve both as narrative strategies and as critical interventions in debates on cultural hegemony, authority, and the politics of representation.

**Keywords:** Amitav Ghosh, *The Calcutta Chromosome*, religion, myth, postcolonial narrative

## Introduction

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## **Overview of *The Calcutta Chromosome***

### **Plot Summary**

*The Calcutta Chromosome* by Amitav Ghosh is a complex narrative that delves into the realms of science, religion, and mythology, set within the framework of colonial India. The novel opens with the character of Antar, a researcher working in Calcutta in the 1990s, who becomes intrigued by a set of mysterious events tied to the work of Sir William, a British doctor during the colonial period. Antar's investigation begins after he uncovers an unusual medical discovery related to malaria, which has baffled scientists for generations. This discovery centers around the *calcutta chromosome*, a biological anomaly that appears to have the potential to unlock immortality, linking the realms of modern

science and ancient myth. Antar's journey leads him into a maze of mysteries involving the forgotten research of Sir William, who was obsessed with unlocking the secrets of malaria transmission and its potential to offer immortality. As Antar probes deeper into the past, he uncovers the existence of a shadowy figure known as the Guru, who plays a crucial role in merging scientific knowledge with mystical practices, guiding the characters toward a larger, almost supernatural understanding of life and death. The central mystery of the novel revolves around the intersection of science and mysticism, with the *calcutta chromosome* acting as a bridge between the two. It becomes evident that the search for immortality, pursued by both scientific and spiritual means, is a theme that transcends time and geography. The story reveals how the human desire for eternal life is both a biological pursuit and a spiritual quest, with characters confronting personal and collective mysteries that ultimately reveal the fine line between myth and reality.

### **Genre and Style**

*The Calcutta Chromosome* is an intricate blend of historical fiction, science fiction, and magical realism. Ghosh uses these genres to create a narrative that is simultaneously grounded in historical events and deeply speculative. The historical fiction aspect anchors the novel in the colonial period, focusing on the intersection of British imperialism, scientific exploration, and the indigenous spiritual practices of India. This historical grounding provides a backdrop for the novel's exploration of the scientific world and its evolution under colonial influence. The novel

moves into the realm of science fiction through its presentation of futuristic ideas, especially the notion of immortality achieved through a genetic discovery. Ghosh introduces the concept of the *calcutta chromosome* as a scientific breakthrough, which is shrouded in mystery and associated with a higher form of knowledge. The narrative also dips into magical realism, particularly through the figure of the Guru, whose spiritual teachings appear to transcend time and space, influencing characters both in the past and the future. By weaving these elements together, Ghosh challenges the conventional boundaries of genre, creating a narrative that is as much about human curiosity and spirituality as it is about the pursuit of scientific knowledge. Additionally, the novel plays with narrative conventions by employing a non-linear storytelling structure, jumping between different time periods and characters, including Antar in the 1990s and Sir William in the late 19th century. This fragmented structure blurs the boundaries between reality and myth, as the reader is forced to engage with multiple perspectives, timelines, and levels of understanding. The layering of past and present also emphasizes the cyclical nature of time, a recurring motif in the novel, linking the quest for immortality with both scientific inquiry and mythological ideas of rebirth and eternity. Ghosh's blending of these genres and narrative techniques creates a complex, multi-dimensional story that challenges readers to rethink their understanding of reality, science, and spirituality.

### **The Concept of 'Scientific Mysticism'**

### **• Science vs. Religion**

In *The Calcutta Chromosome*, Amitav Ghosh presents a profound exploration of the intersection between science and religion, especially through the novel's central quest for immortality. The narrative engages with the tension between the empirical, rational pursuits of scientific inquiry and the spiritual, intuitive practices of religious mysticism. At the heart of the story is the search for a biological key to immortality, embodied by the enigmatic *calcutta chromosome*, a discovery that straddles the boundary between groundbreaking medical science and ancient spiritual beliefs. The figure of Sir William, a British colonial doctor, embodies the scientific quest for immortality through the rational study of malaria and the biological mechanisms of disease transmission. Yet, as his research unfolds, it becomes increasingly clear that his work intersects with a deeper, more mystical pursuit, one that blurs the lines between the material and the metaphysical.

Through this intersection, Ghosh critiques the assumption that scientific rationality can provide ultimate answers to the mysteries of life and death. Sir William's relentless focus on empirical science—his pursuit of knowledge through experimentation and observation—eventually leads him into the realm of the unknown and the supernatural. His work, while grounded in medical knowledge, veers into uncharted waters where scientific methodology gives way to spiritual inquiry. In contrast, the novel portrays religious figures like the *Guru* and the mystical practices of indigenous healing, showing that

spirituality often provides insight into the same mysteries that science seeks to unravel, albeit through a different lens. The novel suggests that science and religion are not opposing forces but rather complementary paths that converge in the search for transcendence, which in this case is represented by immortality. This juxtaposition challenges the boundaries between empirical science and spiritual practices. The novel critiques the Western scientific tradition, which often seeks to dominate, control, and rationalize the natural world, while dismissing indigenous knowledge systems as superstitions or outdated beliefs. Ghosh, however, presents a more nuanced understanding of these belief systems, revealing the potential for religion and mysticism to offer equally valid and profound insights into the nature of existence. Rather than portraying religion as a mere foil to scientific rationalism, the novel illustrates how spiritual practices—rooted in cultural traditions and shaped by myth—can complement scientific inquiry, especially when dealing with questions about the afterlife, immortality, and the essence of life itself.

## **The Role of Religion and Myth in Character Development**

- **Religious Figures and Their Influence**

In *The Calcutta Chromosome*, religious figures play a critical role in shaping the characters' spiritual and intellectual journeys. The most significant of these figures is the *Guru*, whose presence looms over the narrative as a figure who bridges the gap between scientific rationality and

spiritual wisdom. The *Guru* represents a type of enlightened leadership that transcends conventional religious boundaries. He is not merely a spiritual guide, but also a teacher who incorporates elements of scientific thought into his teachings, illustrating the complementary nature of science and spirituality. Through his character, Ghosh suggests that the boundaries between scientific knowledge and religious wisdom are not fixed, but fluid. The *Guru* offers a perspective that is both rooted in traditional spiritual practices and open to the possibilities of scientific discovery, thus influencing the characters' understanding of their own identities and the world around them. The *Guru's* role in the narrative is particularly significant in terms of the internal conflicts faced by the protagonist, Murugan. Murugan, a scientist by profession, begins the novel firmly rooted in the world of rationalism, driven by a desire to understand the biological processes behind the *calcutta chromosome*. However, his journey into the mysterious realm of the chromosome and the unraveling of Sir William's research leads him to encounter the *Guru*, who challenges his scientific worldview. The *Guru's* teachings disrupt Murugan's sense of self and his understanding of science, religion, and spirituality. Through the *Guru*, Murugan is forced to confront the limitations of science and embrace a more holistic approach to knowledge, one that integrates the spiritual and the scientific. The *Guru's* teachings ultimately help Murugan navigate his internal crisis, as he realizes that the pursuit of immortality is not purely a scientific endeavor but also a deeply spiritual one. This process of spiritual

awakening, guided by the *Guru*, allows Murugan to reconcile his scientific rationalism with the mystical knowledge that the *Guru* embodies.

Another character significantly influenced by spiritual teachings is Antar, a researcher working in Calcutta in the 1990s. While his role in the narrative is more peripheral compared to Murugan's, Antar's journey also revolves around the influence of religious figures and their teachings. Like Murugan, Antar initially dismisses spirituality in favor of scientific inquiry, but as the mystery of the *calcutta chromosome* unfolds, he too is forced to confront the possibility that the answers to life's most profound questions lie not just in empirical science but in mystical wisdom. Antar's interaction with the spiritual teachings embodied by the *Guru* helps him realize that science alone cannot offer a complete understanding of the universe. This realization deepens his understanding of self and identity, as he navigates the blurred lines between science and religion in the quest for immortality. In addition to the *Guru*, there are other religious figures in the novel who influence the characters' journeys, albeit in more subtle ways. For example, the character of Mangala, whose role in the story is tied to the central mystery of the *calcutta chromosome*, embodies the archetype of the healer. Mangala's involvement with the *calcutta chromosome* is both a scientific and a spiritual quest, as she seeks to unlock the secrets of immortality. Through her connection to religious traditions and healing practices, Mangala becomes a conduit for the fusion of scientific and

spiritual knowledge. Her character exemplifies the idea that the pursuit of truth, whether scientific or spiritual, is a journey that requires both intellectual rigor and spiritual openness. The presence of these religious figures in the novel challenges the characters to reconsider their own beliefs and identities. The *Guru*, Mangala, and other spiritual figures act as catalysts for personal growth and transformation, pushing the characters to question the limitations of their existing worldviews and to embrace new ways of understanding themselves and the world. Their influence serves to highlight the central theme of the novel: the intersection of science and religion, and the idea that both are necessary to navigate the complexities of life, death, and immortality.

### **Mythological Archetypes in the Characters**

The characters in *The Calcutta Chromosome* are not only shaped by religious influences, but they also embody various mythological archetypes, each of which plays a crucial role in the unfolding of the narrative. These archetypes—such as the seeker, the mystic, and the healer—serve as metaphors for the characters' respective journeys and the larger themes of the novel. One of the most prominent mythological archetypes in the novel is that of the seeker. Murugan, who begins the story as a scientist driven by a desire to uncover the scientific truth behind the *calcutta chromosome*, embodies the archetype of the seeker. His quest for knowledge is both intellectual and spiritual, as he moves from a purely empirical understanding of the world to a more holistic view that embraces both scientific and spiritual insights. Murugan's journey mirrors

the mythological journey of the seeker, who embarks on a quest for deeper understanding, often facing internal and external obstacles that challenge his beliefs and perceptions. The *Guru* serves as a guide for Murugan, helping him navigate the complexities of his own search for meaning, and ultimately leading him to a more integrated understanding of science, religion, and identity. The character of Mangala embodies the archetype of the mystic. In many mythological traditions, the mystic is a figure who transcends the material world and attains a deeper connection with the divine. Mangala's role in the novel is tied to the mystical search for immortality, as she becomes intertwined with the *calcutta chromosome* and its potential to unlock eternal life. Her character represents the merging of the mystical and the scientific, as she embodies both the spiritual quest for enlightenment and the biological pursuit of immortality. Mangala's journey is one of transformation, as she moves beyond the limitations of conventional science and embraces a more mystical understanding of existence. In doing so, she becomes a representation of the mythological mystic, who seeks not just knowledge but spiritual transcendence.

Another archetype present in the novel is that of the healer. While Mangala is directly associated with the archetype of the mystic, she also embodies the healer's role in the novel, as her connection to the *calcutta chromosome* is rooted in her ability to heal and transcend the human limitations of mortality. The *calcutta chromosome* itself can be seen as a symbol of

healing, as it promises not just a cure for malaria but also a path to immortality. The healer archetype in the novel suggests that the pursuit of immortality is not just a scientific or spiritual endeavor but a deeply human one, as the characters seek not only to understand the mysteries of life but to transcend them. These mythological archetypes serve to shape the actions of the characters and guide their development throughout the novel. By embodying these archetypes, the characters are able to engage with the larger themes of the novel—such as the intersection of science, religion, and myth—and move toward a deeper understanding of themselves and the world around them. The archetypes also highlight the ways in which religion and mythology shape the characters' actions, offering them the tools to navigate their personal quests for knowledge and immortality. The seeker, the mystic, and the healer are not merely symbolic figures; they are integral to the characters' personal transformations, serving as guides and models for the spiritual and intellectual journeys they undertake. The religious figures and mythological archetypes in *The Calcutta Chromosome* play a crucial role in the characters' development, guiding them through their personal journeys of transformation and self-discovery. The *Guru*, Mangala, and other spiritual figures offer both guidance and challenges, pushing the characters to question their existing beliefs and embrace new ways of understanding themselves and the world. Through these religious figures and mythological archetypes, Ghosh weaves a narrative that reflects the complex interplay

between science, religion, and myth, suggesting that all three are necessary for a holistic understanding of existence.

### **Religion and the Intersection of Personal Identity**

- **Religious Influence on Identity Formation**

In *The Calcutta Chromosome*, religion plays a crucial role in shaping personal identity, particularly in how characters understand themselves and their place in the world. Religion and myth not only serve as spiritual guides but also influence the characters' actions, worldview, and sense of self, reflecting the complex intersection between individual identity and collective spiritual beliefs. Central to this exploration is the character of Murugan, whose journey from a strictly rational, science-driven worldview to one that incorporates elements of spirituality and myth underscores the transformative power of religion in shaping personal identity. Murugan, initially committed to the scientific method, begins the novel with a clear sense of self defined by his role as a researcher and scientist, grounded in the material world. However, as his investigation into the *calcutta chromosome* deepens, he finds himself drawn into a realm that challenges his previous understanding of reality, prompting a crisis in his sense of identity. His engagement with the mysterious *Guru* figure forces him to confront the limitations of science in answering the larger existential questions of life, death, and immortality. Through the *Guru*'s teachings, Murugan gradually comes to realize that his

identity cannot be fully understood through the lens of science alone. The *Guru*, embodying the fusion of science and spirituality, becomes the catalyst for Murugan's personal transformation, helping him understand that personal identity is shaped not only by external knowledge but also by internal, spiritual wisdom. Murugan's internal conflict is emblematic of the larger theme in the novel about the formation of identity through the intersection of religion, science, and myth. As Murugan grapples with his crisis of identity, he must reconcile his belief in rational scientific thought with the understanding that human identity cannot be reduced to mere biological processes. This realization prompts a reevaluation of his self-concept, highlighting the role of religious and spiritual beliefs in shaping his worldview and how he perceives himself in relation to the broader universe. The *Guru*, who presents spiritual insights as a counterbalance to Murugan's scientific understanding, offers an alternative pathway to self-realization—one that acknowledges the spiritual and metaphysical dimensions of existence. In the process, Murugan's identity evolves from one firmly anchored in the empirical to one that embraces the uncertainties and mysteries of existence, reflecting how religious teachings and spiritual figures can profoundly influence personal identity formation.

### **The Intersection of Time, Religion, and Myth**

- **Cyclic Time and Mythological Concepts**

In *The Calcutta Chromosome*, the representation of time is intricately woven into the fabric of the narrative, particularly through the lens of religious and mythological concepts. Ghosh challenges

conventional, linear notions of time, presenting time as cyclical, where past, present, and future are interconnected and fluid. This concept of cyclical time, rooted in various religious and mythological traditions, mirrors the novel's exploration of immortality, reincarnation, and the eternal return. In many Indian religious philosophies, time is not seen as a linear progression from past to future but as an endless cycle of creation, destruction, and rebirth. This cyclical view of time, often encapsulated in the Hindu concept of *kalachakra* (the wheel of time), is central to the spiritual and philosophical themes of *The Calcutta Chromosome*, where the boundaries between life, death, and rebirth blur and intertwine. The *calcutta chromosome*, a central motif in the novel, symbolizes this very intersection of time and immortality. Just as the chromosome represents a biological key to immortality, it also encapsulates the idea that time itself is not linear but cyclical, suggesting that death and rebirth are part of a continuous, eternal process. The characters' pursuit of the chromosome, and their attempts to unlock its mysteries, reflect the human desire to transcend the limitations of linear time and access a higher, more spiritual understanding of existence. This search for immortality mirrors the mythological concept of eternal return, where the same events repeat in an endless cycle, providing an opportunity for characters to transcend the finality of death and explore the continuity of existence across time.

The nonlinear structure of *The Calcutta Chromosome* itself reflects these mythological

perceptions of time. The novel frequently shifts between different time periods, jumping back and forth between the colonial past, where Sir William's research takes place, and the present, where Antar's investigation into the mystery of the *calcutta chromosome* unfolds. This fragmented narrative structure mirrors the cyclical nature of time found in mythological traditions, where time is not experienced as a straight line but as a complex, interconnected web of moments that loop and intersect. The novel's nonlinear storytelling allows the past and present to coexist, creating a sense of timelessness where the events of one period influence and echo those of the other. Just as mythological time allows for the past to return and influence the present, Ghosh's narrative structure enables the characters to engage with their histories and futures simultaneously, allowing them to access and reinterpret the wisdom of the past in the context of the present.

### **The Novel's Critique of Scientific Rationalism**

- **Religion as an Alternative to Scientific Rationalism**

Amitav Ghosh's *The Calcutta Chromosome* offers a nuanced critique of the dominance of scientific rationalism, particularly within the colonial and postcolonial contexts. The novel interrogates the prevailing assumption in Western thought that scientific rationalism is the ultimate method for understanding the world, and through its narrative, it presents religion and mythology as equally significant lenses through which the mysteries of existence can be approached. Set against the backdrop of British colonial India, where Western

science was often used as a tool of domination, the novel questions the hegemonic role of scientific knowledge in shaping both individual and collective identities. Ghosh challenges the reductive approach of scientific rationalism, which tends to frame human experience in terms of biological, material, and observable phenomena, by integrating spiritual and mythical elements that suggest a more holistic approach to understanding human existence. At the heart of the novel lies the *calcutta chromosome*, a scientific discovery tied to the transmission of malaria and the potential for immortality. The *calcutta chromosome* itself becomes a symbol of the intersection between science and spirituality, suggesting that the quest for immortality is not solely a biological pursuit, but one that engages with the metaphysical, the mystical, and the divine. This blending of scientific inquiry with spiritual and mythical elements critiques the limitations of scientific rationalism by proposing that there are aspects of the human experience that cannot be fully understood through reason and empirical observation alone. Ghosh, through his portrayal of the search for immortality, presents a challenge to the idea that science is the only legitimate means of gaining knowledge, arguing instead that religious beliefs and mythological narratives also offer profound insights into the nature of life and death.

The novel proposes that religion, mythology, and science are not inherently in conflict but can complement each other in the quest to understand the human condition. The *Guru*, a central spiritual figure in the novel, embodies this

synthesis. His teachings combine elements of scientific knowledge with spiritual wisdom, suggesting that both are necessary for a comprehensive understanding of the world. The *Guru*'s blend of science and spirituality represents a critique of the strict compartmentalization of knowledge that is characteristic of scientific rationalism. He reveals to the characters that science and religion are not separate domains, but rather two sides of the same coin, each offering valuable perspectives on the deeper questions of existence. Through the character of the *Guru*, Ghosh critiques the colonial mindset that sought to prioritize scientific rationalism over indigenous spiritual and mythological knowledge, proposing instead that both are integral to the full understanding of human experience.

human experience.

## References

1. Fendt, J. (2015). The Chromosome as Concept and Metaphor in Amitav Ghosh's *The Calcutta Chromosome*. *Anglia*, 133(1), 172-186.
2. Abdullah, M. A. S. (2020). Deconstructing Western Hegemony and Voicing Silenced Histories in Amitav Ghosh's *The Calcutta Chromosome*. *SARE: Southeast Asian Review of English*, 57(1), 6-20.
3. Kumar, R. (2021). Disease as a Site of Counter-Science: Occult Practices in *The Calcutta Chromosome* by Amitav Ghosh. *dialog*, (38), 326-340.
4. Chambers, C. (2009). Networks of Stories: Amitav Ghosh's *The Calcutta Chromosome*. *ARIEL: A Review of International English Literature*, 40(2-3).

5. Mishra, S., & Kumar, N. (2011). Shaking the Roots of Western Science in Amitav Ghosh's The Calcutta Chromosome. *Asiatic: IIUM Journal of English Language & Literature*, 5(1).
6. Farzana, K. (2016). The Subaltern's Power of Silence and Alternative history: Amitav Ghosh's The Calcutta Chromosome.
7. Arbab, S. (2022). Silence, Subversion and the Subaltern in Amitav Ghosh's The Calcutta Chromosome. *Amitav Ghosh's Culture Chromosome, Leiden and Boston: Brill*, 164-186.
8. Mishra, S., & Kumar, N. (2011). Shaking the Roots of Western Science in Amitav Ghosh's The Calcutta Chromosome. *Asiatic: IIUM Journal of English Language and Literature*, 5(1), 78-85.
9. Maiti, S. (2016). 'In the crafted mimicry of life': The Em 'body'ment of Cultural Memory in Amitav Ghosh's The Calcutta Chromosome.
10. Thrall, J. H. (2009). Postcolonial Science Fiction?: Science, Religion and the Transformation of Genre in Amitav Ghosh's The Calcutta Chromosome. *Literature and Theology*, 23(3), 289-302.
11. Banerjee, S. (2010). The Calcutta chromosome: A novel of silence, slippage and subversion. *Science fiction, imperialism and the Third World: Essays on postcolonial literature and film*, 50-64.
12. Rebello, A., & Yogeshwar, D. (2015). AMITAV GHOSH'S CALCUTTA CHROMOSOME: A HEGEMONIC NOTION OF THE WEST OVER THE EAST. *Research Horizons*, 5.
13. Rasheed, L. A., & Abdullah, T. L. (2023). A Study of Amitav Ghosh's The Calcutta Chromosome in the Scope of Eco-postcolonialism. *Journal of English Language Studies*, 10(4), 20.
14. Mondal, S., & Gaur, R. (2018). Western Medicine in India as a Colonial Case in Amitav Ghosh's The Calcutta Chromosome. *KEMANUSIAAN: The Asian Journal of Humanities*, 25(1).