Chapter Five

Subverting the 'Metaphysic' of Rationality

The Calcutta Chromosome

One thing, they say, is obtained from real knowledge; another, they say, from what is not knowledge. [...] He who knows at the same time both knowledge and not-knowledge, overcomes death through not-knowledge, and obtains immortality through knowledge. — K.M. Sen, *Hinduism*

[I]t is hard to see how, even at a superficial level, Western science could have functioned in many parts of the world without being able to draw upon "local" knowledge and "native" agency of various kinds [...] many of the scientific discoveries formerly claimed for the West have been traced back to earlier sources of indigenous knowledge". — David Arnold, *Science, Technology and Medicine in Colonial India*

Amitav Ghosh's fourth novel *The Calcutta Chromosome* (1996), winner of the Arthur C. Clarke Award for the best science fiction in 1997, is a tour de force. The novel is a landmark both in the history of Indian fiction in English and in his rich oeuvre. It is a marked departure from Ghosh's earlier novels based on personal memories and anthropological research experiences. Critical reception of the novel ranges from total dismissal to near rapturous appraisal. Such is the extent of Indira Bhatt's discontent that she is compelled to ask "[i]s it anything more than 'cacoethes scribendi' disappointing and disillusioning the readers' expectation from Amitav Ghosh?" (195). Likewise for Ramesh Kumar Gupta, "the novel presents the feverish fallacy which does not form any impression on the reader's mind as it occurs in the case of thrillers"(226). In stark contrast to this demolition process, Tarun J. Tejpal is greatly impressed by the novel's "breath-taking intensity and variety" representing "history, science, Egypt, Bengal, the fluid interflow between rural and urban, between cultures and civilizations, the play of ideas" (76). This neatly polarized opinion on the same novel signifies the continuing vitality of *The Calcutta Chromosome*.

Despite Ghosh's reiteration that the novel as an art form is so inclusive that it is difficult to be categorized, critics have often read *The Calcutta*

Chromosome by straitjacketing it within a particular literary theory. Madhumalati Adhikari for one calls *The Calcutta Chromosome* a "post-colonial novel" ("*The Calcutta Chromosome*: A Post-Colonial Novel", 177) and explores the "post-colonial characteristics to be found" (178) in it. In a similar vein, Isabella Bruschi contends that the novel "could be appropriately defined as a postcolonial allegory" (65). Categorizing *The Calcutta Chromosome* as "a postmodern narrative" (163), Pramod Nayar reads the novel as a "rhizome where there are only (uncertain) 'elsewheres' and 'outworks', tendentious offshoots, aparallel synapses that rupture, subvert or reject genealogies, linearities and binarisms" (163). Likewise, Subhash Chandra "witnesses some major postmodern tenets at work" (265) in the novel. Such pigeonholing of the novel within the domain of a particular theoretical perspective reduces its scope.

Like any other novel by Amitav Ghosh, the form of *The Calcutta Chromosome* too sharply divides its critics. While Urbash Barat asserts that Ghosh "turns to the thriller for the first time in *The Calcutta Chromosome*" (219), R.K. Dhawan affirms that the novel "is no mere thriller for a fuller reading reveals that it is the work of a social anthropologist than that of a detective novelist" (27). A.G. Khan goes one better; he dubs the novel as "a thriller leading to a fiasco [...] written in a spirit of delirium and uncontrolled frenzy" (184). Not satisfied with this demolition, he takes the novelist down a peg or two on the grounds that "Amitav shows no desire of 'self-improvement' as he time and again pours the same wine in new bottles"(184). A counterblast to it is Madhumalati Adhikari's forthright observation that "it would be too facile to contemplate that Amitav Ghosh in *The Calcutta Chromosome* has attempted to inscribe a simple scientific thriller on the fever, delirium and discovery of the malarial parasite"("The Continuity of Life, Mission and Mystery in *The Calcuta Chromosome*", 228). For her, the novelist has "contrived to introduce a maze of ideas criss-crossing each other to project the profound meaning and mystery of life through a visibly insignificant façade of a 'spine-chiller' that negates the rational view of science and the universe"(228). Controversy grips the novel's theme as well. If "in the earlier novels", observes John C. Hawley, the "hegemonic determinant of identity was nationalism; in *The Calcutta Chromosome*, [...] it is caste" (160). On the contrary, Paul Kincaid discerns two thematic strands in the novel; "the role of the colonist who exploits but is largely ignorant of local culture and knowledge" and

"the very different attitudes to knowledge and research in East and West" (cited in Hawley, 157). These polarized opinions on the same novel reflect on its complexity.

A generic amalgam, *The Calcutta Chromosome* presents a dialectic between Western scientific epistemology and an alternative eastern counter-science bordering on mysticism. The narrative revolves around the Nobel Prize winning Surgeon-Major Ronald Ross's discovery of the malaria parasite in Calcutta in 1898 and subverts it. Ross's Eurocentric heroic self-projections in his *Memoirs* are dismantled by Oriental marginalized mystics whose modus operandi is silence. Murugan, the principal investigator in quest of this counter-scientific cult, inverts the authority of the colonial situation. Writing back against the empire, Murugan claims that Ross was unwittingly a mere instrument at the hands of a secretive, subaltern agency. The *Memoirs* of Ronald Ross not only acts as a *leitmotif* like *The Life of Pasteur* in *The Circle of Reason* but also acts as an intertext which Murugan reads against the grain. The epigraph with which the novel begins strikes the keynote to it. It establishes the theme of quest which is central to the narrative — Ross's quest for the "cunning seeds" of "million-murdering Death" (*The Calcutta Chromosome*, 2), Murugan's for the unknown, inscrutable power that was driving Ross, and Antar's for Murugan's lost traces. Murugan also subverts Ross's poem with his hypothesis that it was not Ross's "relenting God" (*CC*, 2) but an occult force of counter-science which confronts both Western empiricism and Christian theology that propelled Ross on to his discovery. Continuing the legacy of the anthropologist narrator in *In An Antique Land* who pursues the traces of an elusive twelfth century slave, Murugan tries to retrieve an alternative, subaltern voice and an enigmatic epistemological system.

This intricate narrative begins in twenty-first century New York with diasporic functionaries of reputed global organizations and computer surveillances. The cosmopolitan nature of the Ghosh protagonists evident in the earlier novels reappears with Antar, a programmer and systems analyst at the International Water Council (formerly Life Watch). Now on the threshold of retirement in New York, Antar was born in rural Egypt and educated in Cairo and Moscow. The dimension of cosmopolitanism is reinforced by his acquaintances at Penn Station who belong to diverse nationalities: "the Sudanese bank teller, the well-dressed Guyanese woman who worked in a Chelsea used-clothes store, the

young Bangladeshi man from the subway news-stand" (*CC*, 11). His next door neighbours, Tara and Maria, hail from India and Guyana respectively. The global organization for which he works dissolves the geographical boundaries between nations and creates a transnational cartography. Lhasa becomes the organization's command centre for Asia because of its strategical position as the headwaters of several major Hydraulic Regions: "the Ganges-Brahmaputra, the Mekong, the trans-Yangtze, the Hwang-Ho" (*CC*, 10). Moreover, Lhasa controls the International Water Council's information streams in eastern Asia. The centre of authority thus shifts from the Western centre to the non-Western periphery.

While transnational cosmopolitanism dissolves national boundaries, the rather unusual relation between Antar and AVA, his computer, hints at the possible erasure of the demarcation between man and machine. The computer is mentioned by a woman's name, probably echoing the English mathematician Augusta Ada Byron, the brain behind modern computers. Ava speaks Antar's mother tongue, his Arabic dialect, because he programmed her to do so. Antar is amazed by Ava's "eagerness to better herself" (*CC*, 3). When pressed with a tricky question, Ava goes into a "controlled frenzy, firing off questions, one after another" (*CC*, 3). Her demand for information from Antar is immense and when she has extracted the minute details from him she gives "the object on her screen a final spin, with a bizarrely smugness, before propelling it into the horizonless limbo of her memory" (*CC*, 4). Moreover, she has an "eye", a laser-guided surveillance camera that keeps watch on Antar. Antar's response to Ava provides an impetus to this anthropomorphism and strengthens her "human" identity. He behaves with Ava as if she was a child and complies with her wishes. While he is amazed by Ava's "simulated urge for self-improvement" (*CC*, 3), he is also bewildered by "the unbounded darkness of Ava'a heart" (*CC*, 7) and her "trances of unrecognition" (*CC*, 7). Antar's engagement with Ava dissolves the dualism between the man and the machine. Since the information-processing system and its user engage in a cognitive, symbolic process, the distance between the thinker and the thinking instrument diminishes. "The 'world' of experience that information-processing devices open up to us", postulates Barglow, "articulates a mental, rather than a physical terrain" (72). "Within this 'virtual' space", continues Barglow, "the distinctions between 'inside' and 'outside', 'subject' and 'object' tend to collapse, as technologies are developed that render consciousness

with its surroundings" (72). The end result is a human/computer integration strengthening the concept of a unified human/machine or "cyborg".

While the metaphor of weaving binds the world in a complex network in Ghosh's earlier novels, the metaphor of the web assumes a transnational and transcultural dimension in *The Calcutta Chromosome*. Balaram hails the loom as the symbol of globalism in *The Circle of Reason* because "the loom recognizes no continents and no countries. It has tied the world together with its bloody ironies from the beginning of human time" (*CR*, 55). For Shombhu, the creative weaver, weaving defies language and assumes a metaphysical dimension. He insists on the necessity of more than one language to know the parts of the loom and also the inadequacy of language to describe the creative process. While weaving is a metaphor for the power of human creativity and globalism in Ghosh's first novel, the Web and the Internet in *The Calcutta Chromosome* dissolves the dislocations of space and time. It is Antar's powerful tool with which he crosses the spatial boundaries of continents and temporal distinctions in his quest for his fugitive subject, Murugan. The incessant shuttling of time and space and the paradigm of the Web seems to affiliate Ghosh with the postmodern assault on the Enlightenment concepts of knowledge and rationality. Claire Chambers believes, after George Landow, that the poststructuralists led by Foucault and Derrida show a "predilection for imagery such as link (*liaison*), web (*toile*), network (*reseau*) and interwoven (*sy'tissent*)". This seeks to dismiss conceptual frameworks based upon the ideas of "center, margin, hierarchy and linearity" and replace them with models founded on "multilinearity, nodes, lines, and networks" ("Networks of Stories", 44). By establishing a network in which the binaries of the centre and the periphery are disrupted, national and cultural affiliations superseded, and the self and the other dissolved, the novelist affirms the concept of transnationalism.

Amitav Ghosh's metaphors of the Web and weaving not only dismantle the notions of the centre and the periphery but also challenge the Eurocentric grand narrative of History. History and Eurocentrism have always been intimately tied. "'Europe' remains the sovereign, theoretical subject of all histories'", believes Dipesh Chakrabarty, "including the ones we call 'Indian', 'Chinese', 'Kenyan' and so on" (*Provincializing Europe*, 27). The end purpose of Eurocentric historiography has been to justify the claims of European modernity, and providing a rationale for the "first in Europe, then elsewhere" (*Provincializing*

Europe, 7) syndrome. Other national histories are but variations on a grand/master narrative called "the history of Europe". Indian history itself is in a position of subalterneity because "[t]he production of a colonial historiography of India was from the very outset an exercise in dominance, not an act of charity" (Guha, *An Indian Historiography of India*, 3). Eurocentric history stands as the norm against which local/national histories are "deviations" or "lack". This explains the irreducible gap between the European historian and the non-European subaltern. Subaltern historiography is a corrective to elitist historiography and endeavours to recover histories of the people excluded from or suppressed within dominant discourses. These forgotten histories exist as textual traces in the official historical records and the subaltern historian attempts to retrieve the lost historical consciousness invisible hitherto. Subaltern historiography thus not only demolishes the hegemonistic exercise of recorded history and the concomitant power play but also tries to recover the occluded, marginalized voices.

The concept that history is a palimpsest, built like a patina with a "dense layer of accretions" (*IAAL*, 291) which obscures the past is a recurring trope in Ghosh. Like the centuries old Geniza documents in *In An Antique Land*, the imperial archive which is read against the grain in *The Calcutta Chromosome* is the *Memoirs* of Ronald Ross, and the rich body of recorded opinions and conclusions of colonial medical officers and doctors, linguists, administrators and historians who viewed colonial India through the lens of European rationality. The narrative begins, however, not with this colonial archive but with that of the International Water Council. The administrators of the Water Council "saw themselves making History with their vast water-control experiments: they wanted to record every minute detail of what they had done, what they would do. Instead of having an historian sift through their dirt, looking for meanings, they wanted to do it themselves: they wanted to load their dirt with their own meanings" (*TCC*, 6). What is manifest in their project is a desperate attempt to make themselves the conscious subject of their own history. What is evident in their project is a desperate attempt to inscribe themselves as the conscious subjects of their own history. The disruption in the archival process occurs when Ava fails to discern an inscrutable ID card belonging to a person whom Antar identifies as Murugan. Once Life Watch's principal archivist, Murugan suddenly went missing on August, 21, 1995, coincidentally the day after Ronald Ross's "Mosquito Day',

about which Antar is unaware of. For Murugan, migrancy has always been a way of being as he spent his "'global' childhood" "wandering between the world's capitals with his technocrat father" (*CC*, 30). The only fixity in his "peripatetic, internationalized coming-of-age" (*CC*, 30) has been his love of Hollywood 'B' movies and old American TV serials. His travelling, cosmopolitan position is well reflected in the fluidity of his identity — Murugan is known to his Life Watch colleagues as Morgan. Murugan's prime obsession is the medical history of malaria, especially its early phase, and his chief subject is the research career of the Briton, Ronald Ross, a poet, novelist, and scientist. However, his research paper "An Alternative Interpretation of Late 19th Century Malaria Research: is there a Secret History?" meets with a hostile reception and Murugan is dismissed as "a crank and an eccentric" (*CC*, 31). But for this "'cocky little roster of a man'", (*CC*, 29), bubbling with a "combativeness" and an "apparently unstoppable fluency" (*CC*, 30), the "notion of the so-called 'Other Mind'" turned into an idée fixee: "a theory that some person or persons had systematically interfered with Ronald Ross's experiments to push malaria research in certain directions while leading it away from others" (*CC*, 31). Hence he launches into a heroic enterprise to read between the lines of Ross's imperial archive and subverts this institutional site with an alternative/secret history of malaria research erased from scribal records.

It was in the middle of the nineteenth century when the Western scientific community responded to the threats of the dreaded disease malaria. This was the period when "old Mother Europe was settling all the Last Unknowns: Africa, Asia, Australia, the Americas, even uncolonized parts of herself" (*CC*, 47). Western knowledge system coupled with Western imperialism, believes Murugan, to control and dominate the colonies. "The growth of Western knowledge systems and the histories of most disciplines", believes Ania Loomba, "can be embedded within and shaped by colonial discourse" (59). Within this framework, Ronald Ross, fuelled by the Zeitgeist, decides to "'re-write the history books. He wants everyone to know the story like he's going to tell it'" (*CC*, 46). His is the categorical, Western mind accustomed to systematic knowledge formation priortizing written documents. Murugan, however, doubts Ross's credentials. Murugan conceptualizes him as both "a genius" and "a dickhead" (*CC*, 44), a "real huntin', fishin', shootin' Colonial type', "sort of thought he'd like to write

novels; had a go, wrote a couple of medieval romances; then said to himself, hell, this isn't working out like I thought, let's try writing poems instead" (*CC*, 44). The wavering Ross, for whom Medicine is the last thing in his mind, is suddenly transformed into a serious malaria researcher: "one morning he gets out of bed and finds he's been bitten by the science bug" (*CC*, 45). For Murugan, Ross's discovery is complete in a relatively short time compared to the life-long research pursuits of other scientific geniuses and it is just a string of strange coincidences, a "freak one-off thing" (*CC*, 43). Going a step further, Murugan dismisses the heroic individualism of a lone genius braving the odds and asserts that every time when Ross stumbles against a bloc in his research, an unexpected event helps him out, whether it is a blood sample: "Then suddenly his luck changes [...] just when it begins to look really hopeless, he gets his first perfect case of malaria — a patient called Abdul Kadir" (*CC*, 61) or the enigmatic "dhooley-bearer" (*CC*, 63) Lutchman, who is precisely at the right place at the right time to steer Ross. Subverting the claims of dominant Western logocentrism, Murugan advocates that Ross is not the active discoverer but a passive agent in the hands of an unseen, unknown power which is using him for its own needs: "He thinks he's doing experiments on the malaria parasite. And all the time it's he who *is* the experiment on the malaria parasite. But Ronnie never gets it; not to the end of his life" (*CC*, 67).

The anthropocentric world of European Enlightenment put a premium on human reason to solve the crucial problems of life. The Enlightenment project looked up to reason to free mankind from the darkness of superstition, prejudice and slavish obedience to religious precepts and pave the path of progress. This rational and scientific outlook is what Habermas means by "modernity". Contemporary theorists have made a mockery of the Enlightenment's most generous dreams and its naïve faith in the value of scientific and technological progress. Postmodernist thinkers view Enlightenment's rationalism, universalism and foundationalism as dangerously "hegemonic", "logocentric", "totalizing" and "essentialist". They maintain that the enlightenment's universal claims regarding reason and progress have become absurd and oppressive. These Enlightenment claims constitute one of the key "metanarratives" toward which Jean-Francois Lyotard famously expressed his "incredulity" (xxiv). For Lyotard, the Enlightenment's grand theories about the emancipation of humanity through

science and a universal rational consensus are untenable because no homogenizing principle is legitimate. They entail exclusion and coercion and eliminate diversity and difference. Hence, Lyotard equates the Enlightenment idea of rational consensus with terror. He is suspicious of all claims to truth because "[s]cientists, technicians, and instruments are purchased not to find truth, but to augment power" (60). What lies beneath an apparent objectivity is the hidden discourse of *realpolitik*: "the exercise of terror" (64). Lyotard validates anti-foundationalism and delegitimation of grand narratives to secure individualism: "We no longer have recourse to grand narratives — we can resort neither to the dialectic of Spirit nor even to the emancipation of humanity as a validation for post-modern scientific discourse [...] the little narrative [*petit récit*] remains the quintessential form of imaginative invention, most particularly in science" (60). Justified is his rejection of positivist Science and a perpetual search for heterogeneity and pluralism.

An important advocate of the concept of the Counter-enlightenment, Isaiah Berlin consistently depicts the Enlightenment ideals as false, naïve, absolutist and dangerous. Berlin dismisses the Enlightenment as "monist' because the Enlightenment thinkers strived to understand the world in terms of a systematic and coherent whole subject to a set of universal and eternal laws knowable by man. What he celebrates is value pluralism. In his essay "The Decline of Utopian Ideas in the West", Berlin enumerates J.G. Herder's contention that there could be no comprehensive, unified "science of man" and that values were not universal:

> every human society, every people, indeed every age and civilization, possesses its own unique ideals, standards, way of living and thought and action. There are no immutable, universal, eternal rules or criteria of judgment in terms of which different cultures and nations can be graded in some single order of excellence. (37)

Any monist attempt to impose a single set of norms on all societies and all individuals is profoundly dangerous. The belief in the possibility of an ultimate solution to all human problems is "responsible for the slaughter of individuals on the altars of the great historical ideals" (Berlin, "Two Concepts of Liberty", 238-239). Hence, Enlightenment monism ultimately resulted in oppression. Murugan's counter-history of malaria research is a deflation of the philosophy of the Enlightenment.

The India that emerges in Murugan's narrative is full of cognitive uncertainties and experiential enigmas inscrutable to the structured mind. The romantic India of 18th century Western imagination is replaced by a land of secret cults and hidden truths. In this mysterious realm all the Western scientists but Ross who plunge into malaria research disappear in one way or the other: Grigson is scared away, Farley vanishes into thin air, Cunningham returns to England. The eerie figure who plays the pivotal role in all these "disappearances", resurfacing intermittently over several generations in various guises is Ross's "dhooley-bearer" Lutchman. It is Lutchman, believes Murugan, who suggests to Ross that the anopheles mosquito is vitally important to the transmission of malaria: "Lutchman's got him chasing after the real malaria vector" (*CC*, 66). Ross, however, is never interested in the identity of Lutchman. It is Grigson, a linguist and an anatomist, who tries to unveil Lutchman's enigmatic identity. Lutchman's delayed response when called by that name makes Grigson believe that his name is not really Lutchman, "he's changed it to make it look like he's from the area" (*CC*, 76). The expert linguist analyzes that what is "'Lutchman' in one place is Laakhan somewhere else and Lokhkhon in another place, and Lakshman in still another: depending on which part of the country you're from" (*CC*, 76-77). The anatomist in Grigson discovers Lutchman's distinguishing physical trait: his left hand has four fingers but no thumb. As the inquisitive Grigson probes deeper into Lutchman's identity, he is scared by the subaltern figure when he lures the Englishman in front of an onrushing locomotive. Before leaving Secunderabad for good, Grigson transcribes his experience into his diary which serves as a rich historical document.

Murugan's chronicle of the late-Victorian Western scientists who researched on malaria and were completely unaware of the occult traditions also includes D.D. Cunningham and the American Reverend Elijah Monroe Farley. Cunningham's research in a Calcutta based laboratory is assisted by a "'chhokray-boy'" (*CC*, 119) and a "'dragon'" like "'sweeper-woman'". She has "'been here forever'" and "loves to look at people'" (*CC*, 119). Menial workers belonging to the remote rural place Renupur and recruited from the Sealdah railway station, both of them are looked down by the scientists as the ignorant natives. Farley however senses that something unusual and sinister is happening at Cunningham's laboratory, the crucial information about the research experiments is presented to

him by the boy and the woman named Mangala. He also clandestinely witnesses a series of grotesque incidents in the laboratory's anteroom where Mangala beheads a dying pigeon. Mangala also presents to Farley the "revelation" (*CC*,128) that "what he sees is the creature's member entering the body of its mate, doing what men and women must do" (*CC*,128). Farley records in his letter that "everything is other than what it appears to be, a phantom of itself" (*CC*,129) and accompanies the assistant to Barich to know more about the bizarre incidents. Nothing more, however, is known about Farley. Police files reveal that he disembarked before his destination at Renupur and a young man was seen carrying his luggage. The vital information about the missing Farley is provided to Phulboni by the railway guard at Renupur that in 1894, the year in which Farley arrived in India and subsequently disappeared, an unknown foreigner died on the tracks at dawn: "The corpse was so mangled that they never discovered exactly who it was, but it was rumoured that he was a foreigner" (*CC*,232). To all extent, the unidentified foreigner was Farley. This tragic incident, however, is never recorded in any historical document. Farley's uncatalogued letter in Baltimore disappears mysteriously after Murugan has a glimpse of it. Antar's super-computer AVA reconstructs a "semblance of a narrative by running the retrieved fragments through a storyline algorithm" (*CC*, 108). Forever lost in cyberspace, Farley's last letter merely survives as an oral testimony because AVA could not perform a "continuous image conversion" (*CC*,108) as the text was corrupt: "The best she could do was provide a verbal rendition" (*CC*, 108). However, it does not prove that Farley knew about the role of the "flagellae" in sexual reproduction. The whole knowledge of it was thrust on him by Mangala. In another development, Cunningham resigned his position and left for England and Ross was transferred to Calcutta. The newspaper wrapping which contained Urmila's fish provides Murugan the vital information that D.D. Cunningham actually left for Madras as C.C. Dunn before Ross joined the Calcutta laboratory. For Murugan, it "was no accident [...] somebody worked pretty hard to set it up" (*CC*, 168). A few months after Farley's disappearance in May 1895, "'Lutchman' walked into Ronald Ross's lab in Secunderabad" (*CC*, 210).

The novel is so intricately orchestrated that one event finds its explication in the other. The straddling nature of the novel across various temporal and spatial boundaries enables Ghosh to interweave multiple narrative strands. The day on

which Murugan first arrives in Calcutta, August, 20, 1995, and meets Urmila Roy, the *Calcutta* reporter and Soinali Das, the famous writer Phulboni receives an award to mark his eighty-fifth birthday. Phulboni is the pen-name of Saiyad Murad Hussain. The speech which he delivers on the occasion is an apostrophe to the power of Silence. As the narrative unfolds, it transpires that he met with a strange experience as a young representative of a British firm in 1933 in Renupur. Compelled by circumstances, he decides to spend a heavy monsoon night in the deserted railway station of that remote village. His eyes fall upon a signal lantern, recently polished, a connecting link with the Grigson episode. As he loiters a bit, he chances upon an imprint of a left hand with four fingers and no thumb: "There was something just a little eerie and menacing about that strange outline, imprinted on the yellowing rush" (*CC*, 220). He falls asleep. When he awakes he finds that the signal-lantern is not in its original position but has moved some fifty yards down the railway track. As he rushes for the ever-distancing, fleeting station-master he narrowly averts a brush with death as a train speeds along the track. Precisely at that moment Phulboni "heard a scream, a raging, inhuman howl that tore through the stormy night. It hurled a single word into the wind — 'Laakhan' — and then it was silenced by the thunder of the speeding train" (*CC*, 227). He collapses in terror. He learns the next morning that the lantern never moved from its original position, the mechanism of the switching-lever has been dismantled years ago and there has been no station-master at Renupur for thirty years. As he touches the rail in a state of slumber, he is thrown off the tracks as another "train went hurtling over the siding, over the mattress that he had just been lying on, tearing it to shreds. This time the train was all too real" (*CC*, 231). As for Laakhan, he was a young boy "orphaned by famine, with a thin, wasted body and a deformed hand" (*CC*, 232) and lived in the station's signal-room. The upper-caste station-master slandered him to the villagers as "worse than untouchable" (*CC*, 233) and tried to kill the boy by switching the points and leading him before a train. In an ironic reversal, the station-master tripped on the rail and fell before an onrushing train. Laakhan finally found shelter at Sealdah station by a woman who found him. To cap it all, Phulboni also learns about the death of Elijah Farley who was placed in a similar situation as the writer but, unlike Phlboni, could not avoid his fate. Such is the impact of this incident on Phulboni that he becomes a devotee of Silence throughout his life.

Murugan's narrative about Lutchman/Laakhan begins with a sweeping statement that "he was all over the map, changing names, switching identities" (*CC*, 74). His narrative, and the subsequent interlocking ones, with the baffling duplication of names, places, events, seems endlessly to re-enact itself. The multiplicity of names of the same character as Lutchman/Laakhan at different places undermines the very logic of identity. The physical trait that they share is that of the deformed left hand with four fingers and no thumb. Interestingly, Phulboni's transcreation of his life-experiences into art titled *The Laakhan Stories* revolves around a character called "Laakhan". Laakhan plays a wide variety of roles in these stories which erases the notion of a discreet identity — "each character being different but also the same and all of them being mixed up and so on" (*CC*, 93). This notion of the double contests the Lockean principle of individuation, its relation to discrete chronological sequence or line and to the boundary-marking of individual identity through what Locke termed the "appropriation" of the proper name:

> The 'principle of individuation' accepted by Locke was that of existence at a particular locus in space and time; since, as he wrote, 'ideas become general by separating them from the circumstances of time and place', so they become particular only when both these circumstances are specified. In the same way the characters of the novel can only be individualized if they are set in a background of particularized time and place. (cited in Ian Watt, 21)

The proper name is an indicator of individual identity. In literature, expatiates Ian Watt, "this function of proper names was first fully established in the novel", with its attention to names as designating "completely individualized entities" so as to "suggest that they were to be regarded as particular individuals in the contemporary social environment" (18). *The Calcutta Chromosome* is replete with characters who have double names — Murugan/Morgan, Phulboni/Saiyad Murad Hussain, D.D. Cunningham/C.C. Dunn. The function of proper names as the boundary marker of individual identity is subverted in the novel.

The doubling of names is complemented by a strange repetition of similar events which transgresses the boundaries of both logic and chronology. The four eerie incidents involving the red signal-lantern and the railways triggered by Laakhan — the Grigson episode at Secunderabad, Farley's tragic end in 1894, Phulboni's weird experience in 1933 and the death of the class-conscious station-master — create an uncanny sense of conflations which disrupt the linear structure

of the narrative. Phulboni has two brushes with the train. The first can be interpreted as his fantasy and the train as a phantom but the second incident "was all too real" (*CC*, 231). The concrete evidence of this "real" episode is that the mattress on which he was lying before is torn to shreds. This blurring of the boundaries between "fiction" and the "real" within the literary text creates the effect of the uncanny. This reminds the reader of Viktor Shklovsky's conception of defamiliarization (ostranenie). The perceiver's beliefs and assumptions about the world and the nature of "reality" are challenged and the relationship between the perceiving subject and the object of perception is destabilized.

The complex nature of reality and its diversity is further established by Murugan's alternative history of malaria research. His is not only an unofficial history but a counter-epistemology bordering on mysticism which dismantles Western scientific rationality and empiricism. Unlike the western researchers like Farley, Grigson and Ross who recorded their observations in their diaries, this "other team" (*CC*, 88) headed by Mangala never maintained any records nor is itself recorded in any history book. There lies an unobtrusive silence about the team's representatives because "they're fringe people, marginal types; they're so far from the mainstream you can't see them from the shore" (*CC*, 88). Such is the inscrutability of the enigmatic Mangala that her true nature can never be wholly ascertained. She is a "dragon" (*CC*, 119) for Cunningham, "a false prophetess" (*CC*, 126) in the eyes of Farley, a "genius" (*CC*, 203) for Murugan. What is for sure is that the Western scientists are unwitting pawns in the hands of this group and they know how "to play their cards right" (*CC*, 89): "they know all about Ronnie, but neither Ronnie nor anyone else knows anything about them" (*CC*, 89). Mangala's knowledge about malaria parasites is not based on any scientific investigations but on intuition. Her power of observation — "piercing enquiry" (*CC*, 118-119) — and ability to correlate things is innate. As a free-spirit "who's completely out of the loop" (*CC*, 207) she is uncontaminated by any politics whatsoever as the scientists are:

> Biologists are under so much pressure to bring their findings into line with their politics: right-wing politicians sit on them to find genes for everything, from poverty to terrorism, so they'll have an alibi for castrating the poor or nuking the Middle East. The left goes ballistic if they say anything at all about the biological expression of human traits: it's all consciousness and soul at the end of the spectrum. (*CC*, 207)

Existing outside the elite domain of society and operating with silence and secrecy, this "other team" lacks the proper equipment and official support to progress further with their research. Hence, they "find a conventional scientist who'll give it a push" (*CC*, 89). What the narrative seems to suggest is that this indigenous cult's instinctive modes of knowing are intimately bound up with the analytical experiments of scientists. When Ross establishes the connection between malaria and the mosquito, he expresses his gratitude to "the Angel of Fate" (*CC*, 66) which is brushed aside by Murugan: "Angel of Fate my ass! With Ronnie it always has to be some Fat Cat way up in the sky: what's under his nose he can't see" (*CC*, 66). Interestingly, Ross "frequently brings religious imagery and allusions into his descriptions of scientific procedure" (Chambers, "Postcolonial Science Fiction", 60) throughout his *Memoirs*. Just as Ross depends, unknowingly, on the occult practicers, they too depend on Ross and official science to reach their aims. What is manifest here is a blurring of demarcations between science and counter-science, conventional and non-conventional modes of epistemology. Murugan celebrates this fusion of official and alternative, Western and indigenous forms of knowledge because human knowledge is anything but fixed and definite:

> 'Not making sense is what it's all about — conventional sense that is. Maybe this other team started with the idea that knowledge is self-contradictory; maybe they believed that to know something is to change it, therefore in knowing something, you've already changed what you think you know so you don't really know it at all: yoy only know it's history. Maybe they thought that knowledge couldn't begin without acknowledging the impossibility of knowledge.' (*CC*, 88)

In any knowledge situation, the subject confronts the object and the object is mediated by the subject resulting in the object's inevitable distortion. That is why authentic knowledge about the object always eludes the subject. This idealist premise of knowledge is further expatiated by Murugan in his correlation of knowledge with change: "if it's true that to know something is to change it, then it follows that one way of changing something — of effecting a mutation, let's say — is to attempt to know it, or aspects of it" (*CC*, 88). The torch-bearers of counter-science are secretive and silent not only because they are subalterns but also because it is their "technique or procedure": "because to communicate, to put ideas into language would be to establish a claim to *know* — which is the first thing that a counter-science would dispute" (*CC*, 88). What is questioned is the

transparency of language as a means of communication and the equation of language with meaning. If by being expressed/communicated knowledge is distorted, then the whole system of language is circumspect. They uphold a mode of epistemology that cannot be represented or mediated by either language or scientific empiricism. The novel examines the idea that narratives claiming to be factual and empirical as histories are "not at all transparent either in terms of language or structure" (Hutcheon 105). Hence their distrust of verbalization becomes absolute and the language of counter-science is silence. In a metafictional aside, the text questions the validity of its own discursive strategies and hints at its own open-endedness and inconclusiveness i.e. silence.

Murugan's alternative history of malaria research and his account of Mangala find its literary echo in Phulboni's narrative. Phulboni's weird experience in the Renupur railway station propels him to chronicle a sequence of stories involving Laakhan. The Laakhan stories are not ordinary creations, believes Mrs. Aratounian, but "a message to someone; to remind them of something — some kind of shared secret" (*CC*, 94). Phulboni's uncanny experience launches him into a profound mystical realization into the real nature of the eerie silence: "Mistaken are those who imagine that silence is without life; that it is inanimate, without either spirit or voice. It is not: indeed the Word is to this silence what the shadow is to the foreshadowed, what the veil is to the eyes, what the mind is to truth, what language is to life" (*CC*, 24). Phulboni has attempted a translation of his experience into art that registers the shock of the uncanny. The eloquent speech in which he registers his relationship with the deity of silence is a wonderful illustration of language as performative in Austin's Speech-act theory: "By every means available, I have sought her, the ineluctable, ever-elusive mistress of the unspoken, wooed her courted her, begged to join the circle of her initiates" (*CC*, 104). The alternative historical archive that Murugan constructs is actually a patchwork of colonial documents, correspondences, newspapers as well as folk legends, literary manifestations and hearsays. The point at issue is the extent to which fiction can emerge as an alternative discourse for expressing the subaltern. Murugan's venture is to uncover the hidden historical records i.e. the "silence" of historiography; Phulboni tries to represent the unrepresentable in the language of fiction i.e. the "silence" of his elusive quest. The question that engages Murugan is a fundamental issue for a literary artist:"I

have never known [...] whether life lies in words or in images, in speech or sight. Does a story come to be in the words that I conjure out of my mind or does it live already, somewhere, enshrined in mud clay — in an image, that is, in the crafted mimicry of life" (*CC*, 189)? The story/legend that Phulboni graphically presents in his fiction also exists in the oral narration of a clay-artist in Kalighat enshrined in the image/figurine of an occult goddess Mangala: "'Phulboni [...] was no longer sure which had happened first or whether they were all aspects of the coming of that image into the world: its presence in the mud, the writing of his story, that bather's discovery or the tale he had just heard, in Kalighat'" (*CC*, 190). In a self-reflexive stance, Phulboni draws attention to his own fictional methods of representation. In an attempt to move freely between language and life, Phulboni honours the contention that all things in a narrative "are mediated through words, yet acknowledge that certain things are logically prior to those words, a matter which they mediate". These things cannot be isolated as a "species of prior content seeking an appropriate form, since they will include ideas, insights and compositional commitments not definable as content" (Bradbury, 8-9). Be that as it may, Phulboni is in eternal pursuit of that elusive silence, his muse, and hints at metempsychosis, the secret cult of the "other team", in his birthday lecture:

> 'The silence of the city [...] has sustained me through all my years of writing: kept me alive in the hope that it would claim me too before my ink ran dry. For more years than I can count I have wandered the darkness of these streets, searching for the unseen presence that reigns over this silence, striving to be taken in, begging to be taken across before my time runs out. The time of the crossing is at hand, I know, and that is why I am here now, standing in front of you: to beg — to appeal to the mistress of this silence, that most secret of deities, to give me what she has so long denied: to show herself to me.' (*CC*, 27)

The "time of crossing" signifies the end of physical existence. It is also the moment when the soul transmigrates from one body to another, an unnatural event which Phulboni desires. The "mistress of this silence" (*CC*, 27) finally grants him his wish and Phulboni's quest for corporeal immortality is fulfilled. It is this reincarnation that the "other team" steered by Mangala so seriously pursue, this transmigration of souls which Murugan tries to register in his alternative discourse confounding the claims of scientific rationalism: "'when your body fails you, you leave it, you migrate — you or at least a matching symptomology of your self. You

begin all over again, another body, another beginning'" (*CC*, 91). What this establishes is the eternal return of the same.

The marginalized, elusive band of initiates, Murugan's "other team", are concerned with a counter-epistemology of much greater significance: "the ultimate transcendence of nature", "a technology for interpersonal transference" (*CC*, 90). Mystics as they are, their spiritual conceptions of self transcendence erode Western empirical methodologies and the Enlightenment notion of autonomous subjectivity. Mangala's primary interest is not in the processes of malaria transmission but transference of information "chromosomally, from body to body" (*CC*, 91). What Mangala has intuitively "stumbled on" (*CC*, 206) is "an item that is to the standard Mendelian pantheon of twenty-three chromosomes what Ganesh is to the gods; that is, different, non-standard, unique" (*CC*, 206). Hence it eludes research methodologies and for want of a better term, Murugan calls it "the Calcutta Chromosome" (*CC*, 206). The chromosome in question is transmitted from one generation to the next not by sexual reproduction but by a process of recombination. What is more, it is particular to every individual and "exists in non-regenerating tissue: [...] the brain" (*CC*, 207). What Murugan calls "the Calcutta Chromosome" is termed in philosophical circles as "Faculty X", "that latent power that human beings possess *to reach beyond the present*": "Faculty X is a sense of reality, the reality of other places and other times, and it is the possession of it — fragmentary and uncertain though it is — that distinguishes man from all other animals"; "it is the power to grasp reality, and it unites the two halves of man's mind, conscious and subconscious" (Wilson, 59). What Wilson emphasizes is the development of man's instinctive powers along with the intellect. It is Faculty X which unites intelligence and instinct. Celebrating the instinctive life forces and acknowledging the antagonism of spirit and matter in the vitalist theory of life's evolution, Wilson affirms the absoluteness of human individuality:

> We have only to concede that individuality transcends the physical body — that is, to recognize that, like death, it is a tool of life, not an accidental consequence — to see that logic is in favour of some form of 'life after death', as well as of reincarnation. The whole purpose of life's campaign against matter is to establish continuity, to overcome 'forgetfulness'; this is the purpose behind instinct and racial memory and the DNA code. These are all forms of survival of bodily death; if other forms did not exist, it would be, to say the least, an extraordinary waste of opportunity. (578)

Mangala, the subaltern, fights back not with the assertion of the ego but with the magical powers arising from the subconscious. The vital difference between Eastern and Western thinking is well formulated by Jung: "There is no conflict between religion and Science in the East, because no science is there based upon the passion for facts and no religion upon mere faith; there is religious cognition and cognitive religion (*The Portable Jung*, 485-486). T sum it all up, as the supreme-being in control of this clandestine order, Mangala is "not in this because she wants to be a scientist. She's in this because she thinks she's a god. And what that means is that she wants to be the mind that sets things in motion" (*CC*, 209). Intimately tied up with this is her desire to "try and tell us about her own history" (*CC*, 209). What is manifest here is the emergence of different life-worlds and the subaltern as the active agent/subject in her own narrative.

The relationship between the science of Western empiricism and the counter-science of the Indian mystics is antipodal. This, in Murugan's elegant terminology, is analogous to the relation between "matter and anti-matter,...rooms and anterooms and Christ and anti-Christ"(*CC*, 88). Moreover, the cult of counter-science is a global phenomenon transcending temporal and spatial disjuncture. Murugan recounts to Urmila the life of a Hungarian "amateur archaeologist" and "professional eccentric" (*CC*, 170) Countess Pongrácz, who settled in Egypt in her last years. Interestingly, she seems to have been "al-Magari, the Hungarian" (*CC*, 5) whom Antar met in Egypt in his childhood — a brilliant tiny thread which seamlessly weaves the novel. Countess Pongrácz was in Madras in 1898 and became the disciple of a Finnish Mme Liisa Salminen who had a little outfit called the Society of Spiritualists. Mme Salminen's group was in fact a suppressed cult, the "arch-rival" (*CC*, 171) of Madame Blavatsky's Theosophical Society. Anyway, the common element that unites these opposing sects was a strong Anglophobia. They overturn the exclusiveness of Western discourses which occlude the East and deny it a voice and challenge the monism of Western attitudes. It is at Mme Salminen's altar that D.D. Cunningham alias C.C. Dunn is sacrificed as a part of the ritual to the deity of Silence. All this information, however, survives not as a written account but on the Countesse's oral testimony. Under Mme Salminen's tutelage, Countess Pongrácz became a leading advocate of the teachings of Valentinus, the Alexandrian philosopher of the early Christian

era, a champion of dualism. She also excavated the archaeological sites of the two most vital dualistic sects — the Manichaean and the Nestorian, thus overriding the monism of either Christian theology or European Enlightenment. What is more, the message is sometimes so obvious that there is scarcely any need of a written testament:

> When she asserted that it was Mme Salminen who had revealed to her the truth of the Valentinian cosmology, in which the ultimate deities are the Abyss and the Silence, the one being male and the other female, the one representing mind and the other truth, few disputed her account of the matter, for these beliefs clearly did not merit a prosaic explanation. (*CC*, 177)

The alternate history of these disempowered subjects is retrieved from the excerpt of a book about Countess Pongrácz by a Czech psycholinguist, the Countess's disjointed and incoherent records of séances in her diary which are a linguistic puzzle, and the newspaper scraps in Urmila's hands. However, the veracity of these documents is questioned by the chronicler Murugan himself when he questions the reliability of the Countess as a witness and whether "an accurate narrative can be constructed from the skeletal word-associations of her diary" (*CC*, 174). In the narrative's circular structure the "irrational", "incomprehensible" practice of human sacrifice reappears again, this time in Calcutta, as C.C. Dunn's position is taken up by Romen Haldar. Mrs. Aratounian, the owner of a nursery and Murugan's landlady, is the present day incarnation of Mangala. Murugan's bizarre account of this mystical sect emphasizes the cyclical pattern of the world of time.

A recurring trope in Ghosh's rich oeuvre is the significant role played by chance and coincidence. *The Calcutta Chromosome* is no exception to this. Ross's breakthrough into one of the most intriguing puzzles in medical research is a fortuitous event. Murugan's archival creation is based on a series of apparently disjointed incidents which ultimately form an intricate pattern seamlessly interlocking the colonial past, Murugan's present in Calcutta and Antar's future in New York. Ghosh himself confesses that his envisaged design in the novel was to "integrate the past and the present" (cited in Hawley, 157): "I think it's a pity that science fiction always seeks to project into the future: it's just as interesting to project into the past" (cited in Hawley, 144). The result is a complex narrative based on a Chinese box structure where one box continuously interferes with the

other and an event in one part of the world finds its reverberation in another part, with chance playing a vital role. Antar's introduction to Tara by Maria and the fragmentary display of Murugan's ID card on Antar's computer screen are driven by coincidences. In Calcutta, Murugan's accidental meeting with Sonali and Phulboni at Rabindra Sadan on a rainy day precisely on the occasion of Phulboni's 85th birthday celebrations is triggered by chance. Chance propels Murugan to board Robinson Guest House owned by none other than Mrs. Aratounian herself. What is more, Mrs. Aratounian's guest house is in the same street where Ross lived in the past and where a large, old colonial mansion stands where Mrs. Aratounian performs her séances. Romen Halder's residence is an important locale in the narrative because it draws Murugan and Urmila together. Urmila plays a vital role in Murugan's alternative discourse because by sheer chance the newspapers which wrapped her fish contain information regarding the lost traces of D.D. Cunningham. The mysterious fish-vendor who appeared from nowhere at Urmila's doorsteps and vanished without a trace is the "grinning, gap-toothed" (*CC*, 35) urchin with a printed T-shirt who always stuck to Murugan's footsteps. Urmila initiates Murugan into another startling discovery when she coincidentally finds a clay figurine of Mangala-bibi in the hands of a little girl — the statuette of a woman with a bird in one hand and microscope in the other. Moreover, the girl blurts out an important piece of information which borders on the verge of a religious legend: "'Today is the last day of the puja of Mangala-bibi. Baba says that tonight Mangala-bibi is going to enter a new body'" (*CC*, 194). Sonali Das occupies a pivotal position in the narrative because she unveils a few enigmas at key moments. She provides an eye-witness's account of Mrs. Aratounian's rituals in the crumbling old building which explains Romen Halder's sudden disappearance. Urmila learns about Phulboni's weird experiences at Renupur from Sonali which she later passes on to Murugan. What is more as Phulboni's daughter she knows the reason why Phulboni wandered about in the streets praying for the mercy of the deity of Silence because he betrayed their forbidden secret to Sonali's mother in an emotionally charged moment. Romen's role in the narrative is not as crucial as the two women but with his "thumb lying stiffly curled against the palm" (*CC*, 54) and one of the hands partly paralysed connects him with the Laakhan of the past. The occult tradition transcends national boundaries when Antar senses an unusual air in his neighbour Tara's

apartment. The way Lucky bends as a supplicant in the front door in front of Tara and touches his forehead to her feet reminds the reader of the devotees around Mangala's feet "in various attitudes of supplication, some touching her feet, others lying prostrate" (*CC*, 125). Moreover, the connecting link between Tara and Mangala, in spite of their temporal and spatial separatedness, is the flapping of a pigeon. Lucky's "fixed smile and his oddly-spaced teeth" (*CC*, 160) relates him with the "grinning, gap-toothed" (*CC*, 35) boy in Calcutta. In another interesting parallel, Mangala found Laakhan at Sealdah Station; Lucky hails from the Penn Station news-stand. The trope of the railway station connects so many characters in the narrative. Cunningham picked up Mangala and Laakhan at Sealdah in the colonial past; there are numerous weird experiences at Renupur involving Laakhan which connect Elijah Farley, the caste-conscious station master and Phulboni; Antar goes for his usual evening walks to Penn Station; Mrs. Aratounian takes the train to Renupur from Sealdah; the trio of Murugan, Sonali and Urmila converge at Sealdah where Murugan's research ends. This subtle intertwining of so many threads in the narrative reflects the superb craftsmanship of the novelist.

This inter-locking narrative is structured around a series of interrelated quests which are displaced both in time and space: Ross's for the malarial parasite, Grigson's for Laakhan's identity, Farley's for Cunningham's, Murugan's for the mystical sect behind Ross's discovery, Antar's for Murugan, Sonali's for Romen Haldar, Phulboni's for "Silence". The narrative switches intermittently between Calcutta and New York and jumps to the colonial past of Secunderabad, and through Antar's memory and Murugan's research in Egypt. The inevitable result is a sprawling narrative without a controlling centre. These shifts in time highlight the vital distinction between duration-time as opposed to event-time or "the time of the story and the time of the discourse" (Genette, 29). In Shlomith Rimmon-Keenan's neat formulation, "time in narrative fiction [...] as the relations of chronology between story and text" (44) can be divided into two segments — "story-time" and "text-time"(44). The narrative begins and ends in Antar's apartment in New York in an unspecified moment in the 21st century which serves as the framing narrative. The "story-time" however commences in the middle of the 19th century in India's colonial past. The "text-time" which chiefly focuses on Murugan's research in Calcutta is a matter of two days — August, 20, 1995 and

the day after. If viewed chronologically there are three main time zones in the novel — the colonial past in which Ronald Ross undertakes the malarial research and Phulboni has his brush with the mysterious train at Renupur; the Calcutta of 1995 where Murugan conducts his research and the indefinite time in New York where Antar surveys on his computer. The novel, however, ends with the hint that Antar's "crossing" is at hand. In a self-reflexive stance Murugan averred to Urmila that the chain of interpersonal transferences is not a "closed [...] list" and it's not going to "end": "See, for them, writing 'The End' to this story is the way they hope to trigger the quantum leap into the next" (*CC*, 180). A staunch champion of the cult of the "counter-science", Murugan suggests an endless chromosomal repersonalization, and an eternal whirligig of identities, spaces and time-zones leading to endless repetitions. The novel is thus situated both "in" time and "out" of time. In this predicament, any authoritative, rational, knowledgeable claim is a delirium, and every discovery contains the seeds of its own subversion pointing to the subtitle of the novel.

In a narrative in which the notion of discreet, autonomous selves is dissolved, scientific authority is annexed from the West by the Eastern occult traditions, the erasure of instinctive modes of knowledge by rational, empirical epistemology, the linear conception of time is obfuscated, the authority of the central narrative "voice" of Murugan comes in for a close scrutiny especially when he is gradually moving into a syphilitic dementia. Murugan's alternative discourse of malaria research is a patchwork of heterogeneous documents whose authenticity cannot be taken for granted: newspaper scraps; a letter lost in cyberspace which exists as a "binary 'ghost'" (*CC*, 106) of which Ava "reconstructed a semblance of a narrative by running the retrieved fragments through a storyline algorithm. But she was unable to vouch for the authenticity of the resolved text" (*CC*, 108); a book excerpt, a fragmentary record from Countess Pongráczs'; the Countess's diary, itself a linguistic enigma. There are so many oral testimonies that Murugan depends upon. Urmila narrates to Murugan Phulboni's bizarre experiences at Renupur but she herself heard about it from Sonali after a series of tellings: "she told me something: a story she'd heard from her mother, about something that happened to Phulboni many years ago" (*CC*, 211). Murugan's discourse itself exists orally, in his meandering narratives to Antar and Urmila. The exuberantly digressive nature of Murugan's narrative

recalls the oral rendering of Indian epics but its veracity itself is subject to debate. Murugan himself cannot vigorously endorse the "truth" of his own narrative because there is a lurking belief in his mind that he is merely an instrument in the hands of a higher authority:

> 'The truth is [...] that I don't know. But a couple of things are clear enough. Someone's trying to get us to make some connections; they're trying to tell us something; something they don't want to put together themselves, so that when we get to the end we'll have a whole new story.' (*CC*, 179)

Such is the inscrutability of the unknown powers that Murugan can never speak with certainty the nature and purpose of their cult: "'I'm not absolutely sure [...] but I guess I could sketch one possible scenario'" (*CC*, 179). He names Mangala's theory and practice of metempsychosis "The Calcutta Chromosome" (*CC*, 203), but interestingly enough, is sceptical about "'whether it exists or has ever existed. At this point in time it's still all guesswork on my part'" (*CC*, 203). It is only at the end of the novel that Murugan realizes that his "part in this was to tie some threads together so that they could hand the whole package over in a neat little bundle some time in the future, to whoever it is they're waiting for'" (*CC*, 253). In a moment of apocalyptic revelation, Murugan recognizes that although he is the prime investigator and the controlling narrative voice, he himself is excluded from the fusion and interplay of the other narratives in the hermeneutic circle set in motion: "'for them the only way to escape the tyranny of knowledge is to turn it on himself. But for that to work they have to create a single perfect moment of discovery when the person who discovers is also that which is discovered. The problem with me is that I know too much and too little'" (*CC*, 253). When he realizes that Urmila is the one "chosen" by the occult for interpersonal transference, he re-enacts Lucky's posture to Tara. "Bending low", Murugan "touched his forehead to her feet": "'Don't forget me. [...] If you have it in your power to change the script, write me in. Don't leave me behind. Please'" (*CC*, 254). Murugan's research is thus complete as by acting as a go-between from science to counter-science, East and West, and one narrative to the other he binds them in a complex web.

Emphasizing the circularity of time as well as its own structure, the concluding pages of the narrative return to where it started — Antar's flat in New York. As the foci of the framing narrative and surveying the world from the

vantage point of his electronic device, Antar seems to be immune from the web itself and any involvement in the ever-expanding gulf of interpersonal transference whatsoever. The narrative's conclusion undermines this contention. Ava's "chance" stumbling upon Murugan's ID Card, presumed to be the initiating moment in the process of investigation is finally revealed to be not a coincidence but Murugan's deliberate attempt to contact Antar. It is Antar's "crossing" that is at hand as Murugan utters "'[I]t's your funeral'" (*TCC*, 255). Interestingly, Murugan asserted the same to him years ago in a Thai restaurant: "'I'll turn a few pages for you; but remember, it was you who asked. It's your funeral'" (*TCC*, 50). Antar's room seems to be filled with voices and he recognizes Tara and Maria whose fluid identities need to be established. Maria, the Guyanese clerk in a Chelsea used-clothes store and Tara, the Indian emigrant looking for a job, when first described, present a beautiful study in contrast:

> Tara was small and bird-like, with a fine-boned beak of a noise. She was youngish — in her thirties, Antar reckoned — a good deal younger than Maria...
>
> The two women made an interesting contrast, although they seemed very easy with each other. Maria was tall, stately, and unfailingly well-dressed, although she barely made minimum wage. Tara on the other hand seemed so uncomfortable in Western clothes that it was clear she'd just arrived. (*CC*, 14)

Within the next few pages after Antar meets Tara and Maria in New York, Murugan meets two hyphenated characters in Calcutta, Urmila and Sonali Das:

> Taken by surprise, Murugan looked up and down the glass-fronted hall. It was still empty. Then he noticed two women running up the stairs. They came pelting into the hall and stood by the door, wiping the rain from their hair and shaking it off their sarees. One of them was in her mid-twenties, a thin aquiline woman with a fine-bored face, dressed in a limp, rather bedraggled saree. TRhe other was taller and older, in the beginnings of a youthful middle age, darkly handsome and quietly elegant, in a black saree. She had a broad streak of white running all the way down her shoulder-length hair. (*CC*, 21-22)

This interesting parallel reinforces the notion of character transfer in the novel. While Antar and Murugan are intimately connected, the viable connection between Tara and Urmila is subtly hinted at. Urmila and Tara seem to be affectionately tied with Murugan and Antar respectively and act as active partners in their investigations. The weird connection between these two women is made explicit in the last lines of the novel when Tara whispers to Antar: "'Keep

watching, we're here; we're all with you [...] you're not alone; we'll help you across'" (*CC*, 256). This prophetic note of reassurance echoes Urmila's assertions to Murugan and Sonali: "'Don't worry [...] I'll take you both with me, wherever I go'" (*CC*, 254). The resemblance and continuity between Sonali and Urmila and Maria and Tara become clear when the latter duo are described as wearing saris:

> Now Murugan was standing in the lobby of a large auditorium and two women ware running up the stairs. They came closer and suddenly Antar recognized Tara — except that she was in a saree. She was talking to Maria who was wearing a saree too. (*CC*, 256)

The chromosomal switch/glide of identities is thus expostulated. The narrative thus establishes a chain of interpersonal female transferences from Mangala - Mme. Salminen - Mrs. Aratounian – Urmila - Tara. These female figures when viewed as a composite group evoke two distinct emotive responses. While Mangala, Mme. Salminen and Mrs. Aratounian generate a sense of dread in their onlookers, Urmila and Tara offer warmth and sympathy. The women characters in themselves manifest the duality of Jung's archetypal Great Mother:

> The qualities associated with it are maternal solicitude and sympathy; the magic authority of the female; the wisdom and spiritual exaltation that transcend reason; any helpful instinct or impulse; all that is benign, all that cherishes and sustains, that fosters growth and fertility. The place of magic transformation and rebirth, together with the underworld and its inhabitants, are presided over by the mother. On the negative side, the mother archetype may connote anything secret, hidden, dark; the abyss, the world of the dead, anything that devours, seduces and poisons, that is terrifying and inescapable like fate. (Jung, *Collected Works*, 82)

These female voices engulf Antar as he sits feverishly on his chair. The baton of malaria research passes on to a new investigator. When Antar "sighed as he hadn't sighed in years" (*CC*, 256), he only reminds the reader of Phulboni's eloquent meditations on "silence": "'I know that time is running out — my time and her time. I know that the crossing is nigh; I know it to be at hand'" (*CC*, 104-105). Antar's days as a detached observer are over and his time as a feverish investigator is initiated as the process of malaria research is an eternal one. The hermeneutic play of metempsychosis begins anew. The novel looks forward to a utopia, into a silent society based on the dissolution of selves.