

I. Subaltern Can Speak: Resisting the Elite Domination in *The Calcutta Chromosome*

This research focuses on Amitav Ghosh's fourth novel *The Calcutta Chromosome*. It endeavors to analyse this text in relation to Subaltern Studies project. Ghosh offers a much more radical challenge to Eurocentric modes of thinking. Ghosh appears to subscribe to the view that western discourse silences alterity by denying its very capacity for utterance. Gayatri Spivak asks the question "Can the Subaltern Speak?" Ghosh here tries to give the answer of this question in the affirmative way.

Ghosh's *The Calcutta Chromosome* provides the possibility of an alternative subaltern history which has traditionally operated through silence rather than articulation. The adventure of Murugan from the story justifies the above statement in this way:

In 1989 Murugan wrote to the History of Science Society proposing a panel on early malaria research for the society's next convention. When the proposal was rejected he sent pages-long E-mail passages to members of the review committee, Jamming their mailbox. A year later the Society took the unprecedented step of revoking his membership. He was warned that he would face legal action if he tried to attend any further meetings. It was then that Murugan finally gave up trying to argue his case in public. (31)

Murugan represents the subaltern consciousness. He uses the technique of silence while uncovering the hidden truth of malaria research that has been erased from the scribal records of the colonial society and from medical historiography. The novel talks about the colonial past. During colonial period, British scientists came to India

to do research. They succeeded in their research by taking the help of Indian people who were living in countryside area. The credit for work and investigation used to go to British people since everything was controlled by British people. The same thing has happened in the novel. In *The Calcutta Chromosome*, Ronald Ross, the British scientist, took the help of downtrodden Indian people Mangala and Laakhan while doing a research on the life-cycle of malaria parasite. Ross was awarded the 1902 Nobel prize for medicine for his work and his name was recorded in the medical historiography. But the Indian people who really were genius were forgotten. Ghosh rewrites the history of subaltern people like Mangala, Phulboni, and Laakhan by undermining the authority of colonial narratives. Ghosh makes possible for the marginalized characters who can speak for themselves and express their consciousness through silence.

The Calcutta Chromosome destabilizes the centre by focusing on the actions of peripheral character. Murugan, for instance, the character at the centre of the novel, is marginalized in numerous ways by colonial society-both eccentric and "ex-centric"(31). The scientific community "brands Murugan as a crank and an eccentric" because of his outrageous theories, and the History of Science Society subsequently takes "the unprecedented step of revoking his membership" (31). His behavior is characterized by his colleagues at Life Watch to be "erratic and obsessional" (31). Murugan himself hints that his bouts of syphilis and malaria might have somehow affected his brain and by the end, of course, Antar, Murugan's colleague, finds him in an asylum. And yet, despite Murugan's marginality, most of the information and events central to the story's development are filtered through him.

The Calcutta Chromosome interweaves a network of traces to provide the possibility of an alternative subaltern history which exists in parallel with colonial

history as an equally-or possibly more-potent epistemological system, albeit one which has traditionally operated through silence. The main narrative of the novel involves a re-examination of the history of late nineteenth-century malaria research by a possibly deranged Calcutta-born man named Murugna, who is convinced that Ronald Ross, the British scientist who was awarded the 1902 Nobel prize for Medicine for his work on the life-cycle of Malaria parasite, was neither a solitary genius nor a brilliant British dilettante who outstripped all of his contemporaries. Rather, Murugan, the protagonist of Ghosh, believes that there is a secret history that has been erased from the scribal records of the colonial society and from medical historiography and sets out to uncover the hidden truth.

Murugan has had a life-long obsession with the history of malaria research. He gets convinced that there was a conspiracy behind such research. He leaves for Calcutta in search of all missing links. His friends and well-wishers try to dissuade him but Murugan is determined. He finds all the missing links as well as the conspirators. The conspirators are the well-established people of the society or they are termed as elite people who deserve original and genuine. The conspirators try to confuse Murugan and trap him into their experiment. But finally Murugan succeeds to find the real creditors of malaria research and they are marginalized people. So Ghosh seems to believe in marginality or alternative reality. He provides the most obvious case of a subaltern figure exercising power, even if this figure remains voiceless.

Murugan is first encountered through the mediation of a New York based computer system operator named Antar who comes across a fragment of an I.D. card on the screen of his super-computer which sets him off on a quest to reconstruct the recent life-history of its missing owner. The owner in question is Murugan, whom Antar has interviewed a few years before on behalf of the company for whom he

works, to try to dissuade him from a request to be transferred to Calcutta, so that he can pursue his theory that Ronald Ross's research has been manipulated and steered in particular directions by a person or persons unknown. Murugan's research has led him to the conclusion that Ross and other Western scientists working in the field of malaria research in India have been manipulated by their Indian helpers led by woman named Mangala, who appears to be both the high priestess of a secret medical cult, offering a cure for syphilis, and the brain behind the discoveries that eventually led to Ross's winning the Nobel prize. So Ghosh's narrative discredits the Western scientist and instates an Indian female subaltern in his place.

Murugan is the subaltern consciousness who has devoted himself to uncovering the hidden truth of the Calcutta Chromosome. The major part of the story takes place in Calcutta in 1995. The novel follows Murugan and his adventures closely. The laboratory of the P.G. Hospital of Calcutta is the place where Ronald Ross made the final breakthrough in his research. The fact that Ross discovered the cause of malaria in Calcutta, had deeper connotations for those who are conscious of colonization. In the whole world it was India with all its filth, garbage, and puddles that nurtured sufficient number of mosquitoes to make the research possible. Since mosquito cannot be taken as a symbol for cleanliness, where it resides is naturally dirty. Ghosh, in fact, uncovers the whole power politics of the West. The book is an attempt to deconstruct Western aura. It shows that the Western sense of confidence and patronage is misplaced. It is false notion that it guides the destiny of the post colonial nations.

Murugan is the voice of rationality. He senses certain discrepancies in Ronald Ross's account of 'Plasmodium B'. Murugan is unable to free himself from the idea of something being foul in the medical history of malaria. He is preparing an article, 'An

Alternative Interpretation of Late 19th century Malaria Research'. Long back when Murugan was in New York he had written a summary of his research in an article entitled, 'Certain Systematic Discrepancies in Ronald Ross's Account of Plasmodium B.' To his shock Murugan received a very hostile response from the scientific community. All scientific journals rejected the paper. The fact that he doubted Ross's greatness costs him the membership of science society. He was called a crank and an eccentric. Naturally all this did not help Murugan. He became more obsessed and erratic. He began to publicize his ideas about the other mind behind Ross's discovery. His theory is that some persons systematically interfered with Ross's experiment and pushed Malaria research into the right direction. Those persons were inferior marginalized Indian people. But their names were not recorded in the historiography.

How so ever imaginative it may sound, Ghosh seems to believe in marginality or alternative reality. In Calcutta Murugan spots all the missing links as well as the established people of the society-writers, journalists, film stars, and businessmen. Smoothly floating through past, present and future, Murugan weaves the narrative into a coherent whole. By making the protagonist Murugan uncover the truth behind the story of Malaria research in India Ghosh is rewriting the history of "Calcutta Chromosome" through a subaltern perspective.

Ghosh's novel tends to deal with subaltern issues. It deals with the poor people called marginalized and their consciousness. It deals with the impact of colonialism on the Indian society during colonial period. Most of the postcolonial writers tend to depict the impacts of colonialization like cultural displacement, political chaos and corruption in a rather pessimistic tone. Ghosh, however, manages to escape such pessimism. He does not let his characters accept defeat to colonialism despite he appears to be keenly away of all the hazards resulted by colonialism in the colonized

space like India. Murugan, for instance, determines to find the real mind behind the discovery of malarial parasite despite all the conspirators of established society tries to confuse him.

Speaking in a nutshell, Ghosh looking back to past esp. colonial period, attempts to rewrite the historiography for the subaltern who are ignored by elite historiographies: colonialist historiography and bourgeois nationalist historiography. This novel can be regarded as an attempt to write the history from below. Ghosh, in this text, emerges as a social critic as well as the historiographer of the subaltern people. It seems this novel aspires to provide downtrodden people with their own consciousness and their own voice.

Subalternity as represented by Amitav Ghosh in the present novel raises a notion of resistance to elite domination because colonial and other forms of elite historiography have effectively occluded subaltern narratives from the scribal records of societies. The word 'subaltern' in the topic stands for the meaning of inferior rank. This term is drawn from Antonio Gramsci's essay 'On the Margins of History'. Gramsci adopted this term to refer to those groups in society who are subject to the hegemony of the ruling classes. Subaltern classes may include peasants, workers and other groups denied access to hegemonic power. Since the history of the ruling classes is realised in the state, history being the history of states and dominant groups, Gramsci was interested in the historiography of the subaltern classes.

Gramsci claimed that the history of the subaltern classes was just as complex as the history of the dominant classes and history of the latter is accepted as official history. For him, the history of subaltern social groups is necessarily fragmented and episodic since they are always subject to the activity of ruling groups even when they

rebel. Clearly they have less access to the means by which they may control their own representation and less access to cultural and social institutions.

After Gramsci, this term subaltern is extensively used by the Subaltern Studies Group. This group used this term as a mode of historical practice that seeks to recover an indigenous culture which is unaffected by colonialism. Ranajit Guha introduced this term in his first of the *Subaltern Studies Volumes* (1982) in this way:

Parallel to the domain of elite politics there existed throughout the colonial period another domain of Indian politics in which the principal actors were not the dominant groups of the indigenous society or the colonial authorities but the subaltern classes ... This was an autonomous domain ... Far from being destroyed or rendered virtually ineffective...It continued to operate vigorously . . . adjusting itself to the conditions prevailing under the Raj. (4)

Guha here contrasts politics of people with elite politics. For him politics of people mean the politics of subaltern which exists parallel with the domain of elite politics. For him, Subaltern Studies project is another domain of Indian politics in which the principal characters are not the dominant groups or the colonial authorities but subaltern classes. He thinks that politics of the people was an autonomous domain, for it neither originated from elite politics, nor did its existence depend on the latter.

The term has been adapted to Post-Colonial Studies from the work of the Subaltern Studies group of historians. The Subaltern Studies Group aims to promote a systematic discussion of oppressed groups of society through a new historiography that rewrites history from the below. The purpose of the Subaltern Studies project is to redress the imbalance created in academic work by a tendency to focus on elites

and elite culture in South Asian historiography. This group examines the subaltern as an objective assessment of the role of the elite and as a critique of elitist interpretations of that role. Despite the great diversity of Subaltern Groups, the one invariant feature is a notion of resistance to elite domination. The term elite is used here to signify dominant groups, foreign as well as indigenous. The dominant foreign groups include all the non-Indian, that is, mainly British officials of the colonial state and foreign industrialists, merchants, financiers, landlords and missionaries.

Speaking in a nutshell, Subaltern Studies is a creative as well as malleable project. It has been assimilating ideas from diverse disciplines: history, literature, anthropology, culture, sociology and so on. It is interdisciplinary. It is a new way of writing historiography: a history from below. It is the project of recovering a subaltern consciousness. It recovers the experience of those hidden from history.

This research has been divided into four chapters. The first chapter sets the hypothesis is of the thesis with a view to addressing the problem as found in the novel *The Calcutta chromosome*. The critical tool with which to analyze the novel is also mentioned there. The second chapter elaborates on the working tool which will be employed to scrutinize the text. The principal theoretical tool will be the Subaltern Studies mainly in relation to the critical views of Ranakit Guha, Dipesh Chakrabary and Gayatri Spivak. The third chapter presents a detailed textual analysis. The final chapter will conclude the thesis with a brief recounting observation of the work affirming that the hypothesis is projected at the beginning of the paper remains consistent with and supported by the consequent chapters.

II. Subalternity: Resistance against Elitist Representatiuon

Subalternity and its Concept

This chapter discusses Subaltern Studies as a theoretical modality on the basis of which this paper will analyze the text. The very word subaltern denotes marginalized people or oppressed people whose actions and deeds are not recorded in the colonialist historiography during the colonial period in India. When subaltern people tried to raise the question against the Britishers or elite people, they were termed as other. Despite being co-operated to power-gained authority, they were underestimated. As a result, Subaltern Studies seems to provide the subaltern people with their own history and their own voices.

Subaltern Studies began at the end of 1970s but it formally came into existence in 1982 with the aim of writing the historiography of the people ignored by elitists. One of the great Italian Marxist, Antonio Gramsci, analyzed the term subaltern in social theory, using it to denote the people in the margin as opposed to those in the centre. Later on, Subaltern Studies Group aims to promote a systematic discussion of oppressed groups of society through a new historiography that rewrites history from below. They describe their project as an attempt to study:

[. . .] the general attribute of subordination in South Asian Society whether this is expressed in terms of class, caste, age, gender and office or in any other way [. . .] Subaltern Studies group sketched out, its wide ranging concern both with visible history, politics, economics and sociology of 'subalternity' and with the occluded attitude, ideologies and belief system-in short, the culture informing that condition. (Guha vii)

As Ranajit Guha sees the contrasts politics of the people with elite politics, he privileges the former over the latter. He thinks that politics of the people "was an autonomous domain, for it neither originated from elite politics, nor did its existence depend on the latter"(4). It, in spite of the end of colonialism, continues in different forms. The development of nationalist consciousness, in accordance with elitist historiography, has been an achievement either of colonialist administrators, policy, and culture or of elite Indian personalities or ideas. Obviously such historiography, claims Guha, fails to "acknowledge or interpret the contribution made by people on their own, i.e., independently of the elite" (3). It, of course, ignores the people's politics, an autonomous domain, which outlives elite politics. Of course, the subaltern politics is different form elite politics.

The elite groups mobilize their politics through an adaptation to parliamentary institutions whereas subaltern classes do so through traditional organization of kinship and territoriality or class association. Even the strategy of political mobilization demonstrates the link between British colonialism and bourgeois nationalism. The bourgeois nationalists have adopted the legacies of colonialism. In a way, they are successors to colonialism. The elite historiography equally claims "that Indian nationalism was primarily an idealist venture in which the indigenous elite led the people from subjugation to freedom" (2). It illustrated how the elite historiography ignores the roles the subaltern classes have played independent of elite command during the anti-imperialist movement.

Likewise, the national narrative fails to speak on behalf of the people as the postcolonial nationalist project imposes an indigenous form of elitism. The importance of the subaltern reworking of colonial Indian history derives its importance from the fact that it presents the viewpoint of the mammoth subaltern

population of India a point of view of the voice consistently gagged both in the imperialist and nationalist construction of colonial Indian history. The Indian National Movement of the first half of the twentieth century challenged the imperialist notion of India in so far as it conceived of India and Indians as active and sovereign whereas Imperialism saw only passivity, otherness, and dependency. But the movement, which was dominated by the upper-and middle-class people, also imbibed the premises on which the imperialist notion of India was built. The result was that the voice of the majority of the Indians-the subalterns remained under erasure in both discourses. The Subaltern Studies historians seek to recover this "erased" history.

When the history of the subaltern classes was thriving in India, the Subaltern Studies Group quarreled with the official history which ignored the indigenous people. Their purpose was to eliminate the imbalance created in academic work by a tendency to focus on elites and elite culture in South Asian historiography. During colonial period in India, every discipline is controlled by elitist historiography of the colonialist. Elitist historiography of nationalist type counts British writers and institutions among its principal protagonist. According to Subaltern Studies Group, both these varieties of elitism- colonialist elitists and bourgeois nationalists share the prejudice that the making of the Indian nation and the development of the consciousness were predominantly elite achievements. In the colonialist historiographies, these achievements are credited to British colonial rulers, administrators, policies, institutions and culture. According to them, the bureaucratic nationalist history was also successor to colonialist history as both of them ignored the activities the subaltern people did independent of elite groups. These people had played a very significant role to stand British scientists in a right track. However, the

colonist historiography did not record their deeds and actions. Subaltern had been ignored by elite scholars in the past. Thus, all the old research became elitist.

After the decolonization, the bourgeois nationalists succeeded the colonizers. They proved to be true successors to colonizers in their thoughts as well as deeds. Their political and bureaucratic mechanisms were similar to that of colonizers. The parliamentary system, English education system etc, were legacies of colonialism. Like the colonial historiography, the bourgeois nationalist historiography wrote about the deeds and thoughts of those bourgeois nationalists only. It totally ignored the voices as well as deeds of the indigenous people. As the nation, in this new context, was getting reorganized, re-imagined and re-theorized, Subaltern Studies Group, too, was engaged in re-imagining history itself.

The Subaltern Studies Group preferred people to state in the process of rewriting historiography of India. For this purpose, they drew materials from Marxist historiography. However, they did not follow as it is. They blamed Marxism of developing complicity to bourgeois nationalism as it did not question the very concept of nation. Instead, they began carrying out researches on various aspects of subaltern people in different parts of India. In their first three volumes of *Subaltern Studies* by Ranajit Guha, they fully devoted themselves in unraveling and establishing the consciousness of the subaltern people. Especially they focused their attention on peasants insurgency. For their deeds and actions touched the peak in such insurgencies despite they were not recorded in colonialist and bourgeois nationalist historiographies.

A history that recounts only the story of the Indian bourgeois , however, cannot ultimately explain nationalism in India. Guha insists in the article entitled "On Some Aspects of Historiography of Colonial India", because it excludes what he calls

"the politics of people", and by people he means the subaltern groups (4). Therefore, the Subaltern Group of historians offer alternative histories of nationalism in India, histories which reveal the working of subaltern resistance as well as the efforts on part of the nationalist leaders and writers to suppress its emancipatory potential.

Ranajit Guha, in his essay "Dominance without Hegemony and Its Historiography," asserts that colonialism involved dominance without hegemony. In other words, it proceeded on with the help of coercion rather than assent of people. The people resisted against colonialism. The colonial historiography, however simply overlooks their resistance. It undermines their political sensibility. Now it is busy in proving the British colonialism as a rule that was based on the assent of people. It does not reflect the injustices colonialism inflicted upon the ruled people. On the top of all these, some native historiographers fall prey to the discourse of colonialism and its so-called project of improvement. All these factors are responsible behind the emergence of colonialism as a project of imperialism that involved the assent of the ruled.

Contrarily, Guha thinks that colonialism was a rule without hegemony. This hegemony was either created out of coercion or it was simply imagined by colonialist historiographers while writing British history. At the same time they, however, believed that they wrote Indian history. The South Asian history was just one stage in the colonial career of the colonialist historiography. To ignore the thousand year long Indian history is definitely an act of colonial arrogance. After Independence, the bourgeois nationalism inherited as a colonial legacy. It boasts of representing all people as it has won the assent of the people. Like colonialism, bourgeois nationalism takes the help of coercion rather than that of persuasion. So, the bourgeois nationalism, not unlike colonialism, is also the dominance without hegemony. Guha,

therefore, says: "In short, the price of blindness about the structure of the colonial regime as a dominance without hegemony has been, for us, a total want of insight into the character of the successor of regime (elite nationalism) too as a dominance without hegemony" (307). They thought that the elite party led the great anti-imperialist movements like Civil Disobedience, Non co-operation, and Quit Indian.

Right here, Subaltern Studies has developed a rather different idea. It claims that the subalterns defied high commands and the headquarters to make these struggles their own. For this purpose, they appropriate these movements by framing, them in the codes specific to the traditions of popular resistance and phrasing them in their idioms derived from the communication experience of working and living together. So the bourgeois nationalist historiography here emerges deceitful as it "has made such anti-imperialist mobilization into the ground for bourgeois claims to hegemony [...]" (*SSVIII-IX*). And we know better what the ground reality was. As a matter of fact, their claims were contested even by the mobilized themselves.

Obviously, Subaltern Studies aspires to "rewrite the nation outside the state-centered national discourse that replicates colonial power knowledge in a world of globalization" (20). Subaltern Studies, therefore, has brought a paradigmatic shift in the perspective through revision of elite historiographies. And its outcome, of course, is that the subaltern people are now identified as the agency of change. Subaltern people have a history of their own. So, it avoids European theoretical models and recovers subaltern consciousness as a theoretical fiction. It tries to raise the voice of subaltern people which was long been forgotten by the colonialist historiography. At the same time, Subaltern Studies differed from western historians attempts to write history from below. British workers left diaries behind for British historians to find their voice, in but Indian workers and peasants did not leave behind any original

authentic voice. Therefore, to find Indian subaltern voices, Subaltern Studies had to use different methods ie. counter science, silence etc.

Subaltern Studies, as a new kind of national history, "consists of dispersed moments and fragments, which subaltern historians seek in ethnographic colonialism" (20). This kind of historiography, of course, "constitutes subaltern politics because it exposes forms of power/knowledge that oppress subaltern people and also because it provides liberating alternatives" (20). In the process of inquiring colonialism, and after its aftermath, "the historians and postcolonial critics stand together against colonial modernity to secure a better for subaltern people, learning to hear them, allowing them to speak, talking back to powers that marginalized them documenting their past" (20). The historians should aspire to create a "liberated imagined community" (20) which "can come into its own the subaltern language and memory"(20).

Subaltern Studies has developed into a cultural theory as it is based on the culture of the subaltern people. It has moved away from people's politics to the study of the cultural of the subaltern people. Now it tends to take resort to cultural as well as literary modes to know history. The first emancipator act that Subaltern Studies project performs in our understanding of tribes, castes or other such groups, as Veena Das writes in her article, "Subaltern as Perspective," "is to restore to them their historical being" (314). In all, its commitment to restore history of subaltern people is rather genuine aspect about SS. Indeed David Ludden says that Subaltern Studies has become" an original sight for a new kind of history from below, a people's history free of national constraints" (12).

Subaltern consciousness is another hotly debated issue about Subaltern Studies. Gayatri Chakravarty Spivak, in her seminal essay "Subaltern Studies:

"Deconstructing Historiography" gives a deconstructing reading to the activities of Subaltern Studies Group. She tries to assess their work in her writing. Like many other critics, she, too, finds problem with their compartmentalized views of consciousness. While assessing their work she comes to realize that it somehow resembles deconstruction which puts the binary oppositions like elite/subaltern under erasure. Their project, in her view, is rather a positivist one as it aspires to investigate, discover and establish a subaltern or peasant consciousness. For Spivak, Subaltern Studies project offers both a theory of change, and a theory of consciousness. Like Guha, Spivak views that 'subaltern' means the colonized/oppressed subject whose voice has been silenced.

The subaltern historiography approach spearheaded by Guha challenges and rewrites the imperialist and nationalist constructions of the colonial period in Indian history. In addition, Subaltern Studies has become the global concern. "It has gone" Dipesh Chakrabarty, one of the members of Subaltern Studies Group says, "beyond India or South Asia as an area of academic specialization" (9). The reason behind its global presence is that, "Subaltern Studies has participated in contemporary critiques of history and nationalism, and of orientalism and Eurocentrism in the construction of social science knowledge" (9). Moreover, subalternist analysis, as Gyan Prakash remarks, "has become a recognizable mode of critical anthropology" (1476). Jon Beasley Murray and Alberto Moreiras in their essay "Subalternity and Affect" add that, "Subalternity is a situation of relative inferiority with social order, structured according to the principle of hegemony which defines and calibrates that relation of inferiority" (1). So, Subaltern Studies deals with inferiority and domination structure of every global society.

Subaltern Studies underwent a great change along with *Subaltern Studies IV*. The matter of fact was that *Subaltern Studies IV* included the writings of two US based theorists Gayatri Chakravorty Spivak and Bernard S. Cohn, who brought cultural perspective in Subaltern Studies. Spivak rendered linguistic as well as cultural mode to Subaltern Studies with her seminal essay "*Subaltern Studies: Deconstructing Historiography*" (SSIV, 1986). She enabled Subaltern Studies to shift to representation from politics. She, therefore, gave literary mode to Subaltern Studies. Spivak is credited to have rendered Subaltern Studies with the feminist mode as can be seen in the same essay where she raised the feminist issues. Slowly and gradually, Subaltern Studies was moving towards representation, critical theory, cultural studies from subaltern politics. Spivak, in her essay, announces: "The Subaltern [...] generally perceive their task as making a theory of consciousness or culture rather than specifically a theory of change" (330).

Further, Spivak claims that Subaltern Studies conspicuously reflects European Enlightenment project because the latter, too, aspires to recover consciousness. For consciousness is considered to be very ground that makes the disclosure of truth or firm ground possible. In a way, the collective's approach seems to be plagued with as much idealism as the Enlightenment project is. Spivak, however, thinks that "consciousness here is not consciousness in-general, but a historicized political species, subaltern consciousness" (338). She, therefore, regards their efforts to recover peasant consciousness as a strategic use of positivist essentialism in a scrupulously visible political interest. She suggests "that is own subalternity in claiming a positive subject position for the subaltern might be reinscribed as a strategy for our times" (345). This would allow them to use critical force of anti-humanism. However, this consciousness must be used in narrow sense, as self

consciousness, if they really want it to be a fruitful strategy. She, again, reinforces their strategic, use of "peasant consciousness" by saying they (SSG) should be "concerned not with consciousness -in -general but in this crucial sense" (342).

In her influential essay "Can the Subaltern Speak?," Spivak clearly asserts that subaltern cannot speak. The subaltern, a member of the non-ruling class, has to be represented. If knowledge is power, knowledge is privilege, then subaltern subjects are denied to have access to it. Moreover, they do not have the privileged position from where they can express themselves. They have to be represented by the elite intellectuals. Spivak represents the voice of difference among the major postcolonial theorists. Spivak presents the situation of subaltern members whose spokesperson becomes their life-giver and master:

The small peasant proprietors cannot represent themselves: they must be presented. Their representing must appear simultaneously as their master, as an authority over them, as unrestricted governmental power that protects them from the other classes and sends them rain and sunshine from above. (71)

In his/ her attempt to speak on the behalf of subaltern, the intellectual elite can only present interpretation of the subaltern voice filtered through an intellectual/ elitist view point. This blurred view point is not the true voice of the oppressed groups. About the true subaltern voice, Spivak says, "for the true Subaltern Group, whose identity is its difference, there is no unrepresentable subaltern subject that can know and speak itself (. . .)" (80). And she further queries "how can we touch the consciousness of the people, even as we investigate their politics? With what voice-consciousness can the subaltern speak?" (80). The actual subaltern subjects are relegated to the position of subjects rather than participants in a two way dialogue.

Spivak provokes academicians to understand how their positions of intellectual and economic privilege limit their integrity while representing the subaltern.

Michel Foucault defines representation in relation to power. According to him, representation is a matter of power. The powerful people hold authority enough to manipulate representation the way they like. The powerful people or institution turns representation into a truth by suppressing the representation of their rivals.

But here the subalternist intervention of Subaltern Group of historians into Indian history turns out to be a metaphoric representation of the subaltern-metaphoric at the level of epistemology: that the subaltern can speak as apposed to the ironic representation of the subaltern by the post structuralist postcolonial theorists who believe that the subaltern cannot speak (cf, Gayatri Spivak). For example Amitav Ghosh makes subaltern exercising their power. Thus, the work of the subaltern historians does offer a real alternative to traditional historiography about India in their attempt to rethink history from the perspective of the subaltern.

Subaltern Studies Group strives to establish the subaltern people as the subject of insurgency. That's why they propose to focus on subaltern consciousness as their central theme. Otherwise, the subaltern people's experience of insurgency would be turned into a history of events without a subject. Dipesh Chakrabarty, in his essay "Invitation to a Dialogue", announces:

The central aim of the Subaltern Studies is to understand the consciousness that informed and still informs political actions taken by the subaltern classes on their own, independently of any elite initiatives. It is only by giving this consciousness a central place in

historical analysis that we see the subaltern as the maker of the history s/he lives out. (374)

Guha's view clarifies that the alleged peasant consciousness is a strategy they got to adopt for establishing subaltern people as an autonomous domain having their own history. Spivak finally suggests Subaltern Studies Group to follow "reading against grain" approach because it "would get the group off the dangerous look of claiming to establish the truth knowledge of the subaltern and his consciousness" (356).

In his essay "Elementary Aspects of Peasant Insurgency", Guha, too, depicts tribal revolts as the subaltern rebellion, which is completely different from nationalism. "Subaltern Studies", in David Ludden words, "entered that academic scene by asserting the complete autonomy of lower class insurgency" (10). It is equally remarkable that the scholars from inside and outside Subaltern Studies have established subaltern people's everyday resistance against elite classes as the basic feature of life in the politically feature of life in the politically decolonized spaces like India.

Never the less subaltern consciousness has always been a critical point of Subaltern Studies. Sim Masselos, as quoted by Ludden, criticized such kind of essentialist nation about peasant consciousness. He calls "Subaltern . . . a creation, a reification of historians" (23). Likewise, he thinks that it is merely a "Sterotype of resistant subaltern people" (22). In other words, any theory, which endeavors to establish the autonomy of the subaltern classes, would erase them from the history.

Nevertheless, the subaltern groups tend to resist the elite domination. It emerges as an invariant feature about subaltern groups. Obviously, it somehow makes the discussion on the subaltern mentality fruitful. Subaltern people involved in

their scientific research in their own traditional ways Subaltern Studies deal with the issues like subaltern consciousness and effects of colonization on subaltern people. It tries to deconstruct colonial historiography to establish subaltern historiography as the hegemonic one. It has brought about a paradigmatic shift in our way of perceiving life and world. Subaltern has got to appropriate and reappropriate the language and theoretical strategies of the elite group to speak on behalf of the subaltern. The subaltern consciousness has always been the focus point of Subaltern Studies. Subaltern Studies tried its best to establish the subalterns as an autonomous domain.

Woman as a Subaltern

When Subaltern Studies Group emerged in India in 1982, it was set to undertake empirical study on various aspects of subaltern people irrespective of caste, gender, color, profession, space, and class. Therefore, Subaltern Studies did not take up the woman issues distinctly up to the first three volumes of *Subaltern Studies*. With the inclusion of Gayatri Chakravorty Spivak in *Subaltern Studies IV*, Subaltern Studies entered a new domain: Feminism. While pointing out the vulnerable points of Subaltern Studies, Spivak made it clear that Subaltern Studies, as a discourse to speak on behalf of marginalized groups, has not paid as much attention to women as it should have. She is amazed at its "indifference to the subjectivity, not to mention the indispensable presence of the woman as the crucial instrument" (358).

Spivak has tried to swerve the direction of Subaltern Studies towards feminist issues through her influential write-ups. Spivak can be said to be the first post-colonial theorists with a fully feminist agenda. As far as the women of the colonized space are concerned, they are doubly subalternized, according to Spivak. On the one hand, the women, like their male counterparts, are suppressed as colonized subjects, and on the other hand, their own male counterparts also dominate them. However, it

falls short, in its tendency to draw the subaltern as exclusively male. Spivak analyses the problems of the category of the subaltern by examining the position of gendered subjects. In the other words, colonialism appears to be more hazardous to females than to males of the colonized spaces. The subaltern woman is effaced in these texts. In Spivak's opinion, the identity of woman is erased in the very process of rewriting subaltern subjectivity:

It is rather, that both as object of colonialist historiography and as the subject of insurgency, the ideological construction of gender keeps the male dominant. If, in the context of colonial production, the subaltern has no history and cannot speak, subaltern as female is even deeply in shadow. (82-83)

Definitely Spivak aspires to restore the significance of the woman in the context of Subaltern Studies. It is very conspicuous that the subaltern people took part in the anti-imperialist insurgencies as the members of indigenous elite class and bourgeois nationalists did. Their contribution, however, was simply overlooked by the colonialist and bourgeois nationalist historiographer. The position of subaltern woman can contribute a lot to bring this bitter fact distorted by elite historiographies. For the subaltern woman's voice as well as deed is ignored in the patriarchal society. The subaltern women, despite their contribution and potential, remain unheard the way the subaltern insurgents did despite their active participation in the anti-imperialist insurgencies. Spivak, therefore, thinks that "woman is neglected Syntagm of the semiosis of subaltern of insurgency" (359).

In her scholarly commentary "A Literary Representation of the Subaltern: Mahasweta Devi's 'Standayini'," Spivak argues how women are denied their subjectivity, their voice. Whether the woman is looked "from above" as merely a

sexual object or “from below” as a goddess, she is reduced into the object of the male’s desire. The hegemonic males refuse to perceive women what they desire the latter to be. Moreover, she has also pointed out the parallelism between Jashoda the subaltern, and Jashoda the divine. The icon of Jashoda the divine is used to dissimulate the exploitation inflicted on Jashoda the subaltern. At one aspect, she has been turned into an object of the male’s desire. On the other, she has been worshipped as she feeds their children with her milk. She has been equally linked with the mother country. Here male’s desire is obvious. The male wants to see the woman as a sacrificial being so that he could fulfill his various desires from her. However, she is perceived, she gets reduced down to an object of the male’s desire.

The gaze from below is only the male’s strategy to dissimulate the oppression he inflicts on his female counterpart through his gaze from above. Spivak remarks: “Though a programmed confounding of the two kinds of gaze, the goddesses can be used to dissimulate woman’s oppression” (129). So, by representing as goddesses, the patriarchal society has tried to hide the injustice and oppression it has inflicted upon women. As long as such hegemonic representation remains, the voice of woman will perish under the great expectations created by those self-representation. Spivak further says:

As long as there is this hegemonic cultural self-representation of India as a goddess-mother, (dissimulating the possibility that this mother is a slave). She will collapse under the burden of the immense expectations from that such a self-representation permits. (96)

Spivak posits women in the role of the subaltern questioning the male constructed voice of women within the patriarchal society.

Talking of the *Sati Custom*, in her seminal essay, “Can the Subaltern Speak?”, Spivak reveals how the white men and brown men reduce the woman into the object of male’s desire. The white men deny her subjectivity through their sympathetic paternal desire. They reduce the woman into an object/creature that needs protection. In the same manner, the brown men claim that the brown woman sets herself on fire to death out of her love and devotion to her male counterpart. In this conflict between the white men and the brown men regarding the brown woman, her subjectivity gets ignored. Spivak equally criticizes the white males for trying to call *Saticustom* a barbaric ritual without understanding its cultural significance. Actually, they too are not concerned about brown women. Instead, they want to prove the Indian males impotent and barbaric. So that they can prove themselves rational and powerful enough to protect the brown women. Here, the brown woman is the very point of departure to give an outlet to their chivalry. Whether it is the West or East, the women are denied the position from which they can speak on their own, as both spaces are patriarchies, in which women are always turned into the object of the male’s desire. “There”, Spivak says, “is no space from which the sexed subaltern subject can speak” (103).

“Between patriarchy and imperialism, subject constitution and object formation”, in Spivak’s words, “the figure of woman disappears [...]” (102). The noticeable fact is that whatever discussion she makes on various Subaltern classes, she directs it to the woman issues. She claims that the woman is doubly subalternized in the colonized patriarchal spaces.

Spivak, in her seminal write-up “*Subaltern Studies: Deconstruction Historiography*,” discusses the problem of representation too. She attempts to trace out the complicity between the subject and object of investigation involved in

representation. In it, she reveals how this kind of complicity between male subaltern historians and subaltern males has led to the exclusion of women from Subaltern historiography. Likewise, she talks of representation in her commentary to Mahasweta Devi's short story "Stanadayini". She argues that the technique to represent subaltern classes is gaze from above. Her argument assumes that representation inevitably involves in human suppression of the represented subaltern classes.

Spivak, in her most controversial and celebrated essay "Can the Subaltern Speak?" asserts that the subaltern classes cannot represent themselves. For they have no adequate means and strategies to do so. The elite intellectuals tend to undertake the responsibility of representing the subaltern classes. In such a case, the elite intellectual as a subject of investigation tends to overshadow the subaltern class, the object of investigation. In other words, when any elite intellectual class represents any subaltern class, his/her representation tends to be filtered through his /her (elite intellectual's) perspective. Consequently, there cannot be a representation free of bias of the elite intellectuals. There can be no unproblematic representation of subaltern class. Furthermore, the elite representative emerges as the master to the subaltern people. In other words, there is every chance that the elite intellectual overshadow the subaltern people whom s/he represents.

Spivak asserts that the women form a subaltern class, and the problem of representation is rather noticeable in the representation of the women in various texts of the elite writers. Spivak consistently draws our attention to the problem of representation, as it is the privileged position of elite intellectual scholars that let them serve as the spokesperson of the marginalized women. In other words, the representation of the subaltern is a kind of representation mediated through the

perspective of the elite. Therefore, the representation fails to become the true voice of the oppressed women, which means that the marginalized women cannot speak.

The subaltern as female, as Spivak argues in “Can the Subaltern Speak?” cannot be heard or read, “even if her subalternity is sought to be transcended at the mythical level” (104). So they are necessarily misrepresented. Many writers, with a help of dramatization of myth and exaggeration, have attempted to depict the women as subaltern class that can speak on its own. A feminist historian of the subaltern must raise the question of woman as a structural rather than marginal issue in each of the many different types and cultures that Partha Chatterjee invokes in “More on Modes of Power and the Peasantry.” This kind of representation is not rooted in the socio-cultural reality. Instead, it tends to give false impression about the represented subaltern class: women. The matter of fact is that the writer, as a privileged elite, manipulates the subaltern group he/she represents. Therefore, the representation, which depicts the women as the class that can speak itself, is nothing but sheer manipulation of subaltern women at the hands of the elite writers. This kind of representation brings the elite writer to the limelight at the cost of the represented subaltern women.

As we know, the concept of women has led Spivak to such a serious discussion on the position of the subaltern classes. The subaltern woman, therefore, emerges as an epitome of subaltern. In the same volume, Ranajit Guha also contributed his moving essay “Chandra Death”, which attempts to demonstrate the nature of women subordination with patriarchy. In the same manner, Kamala Visweswaran says: “Women are not accepted as proper subjects, but it does register and seek to contain their agency” (124). She however believes “that it at the point of erasure where the emergence of Subaltern is possible” (124). Here, she counters

Spivak's argument that Subaltern cannot speak. It oscillates between nationalist agency and subaltern agency. She says: "It is in this tension, this moment of oscillation, I would argue, that we recognize the effect where the gendered 'subaltern is felt, woman as a subaltern, subaltern woman" (*SSIX*, 125).

In nutshell, Spivak says that the women of colonized space are doubly subalternized. On the one hand, the women, like their male counterparts, are suppressed as colonized subjects, and on the other hand, their own counterparts also dominate them. In the context of colonial production, the subaltern has no history and can not speak, subaltern as female is even deeply in shadow. So, Spivak posits women in the role of the subaltern questioning the male constructed voice of women within the patriarchy society since both the spaces of colonized and colonizer are male-oriented society.

III. Rewriting the subaltern in *The Calcutta Chromosome*

Elitist Domination

As I have discussed in my theoretical modality chapter, the subaltern people have been suppressed by British elitists during colonial period in India. The discourse of the west, representing everything non-westerners as inferior to that of the west, manifests West's desire to govern, to dominate, and to control the other and that this attitude is colonial at the heart of its heart. At the very outset, by instinct and by intellect, what the Westerners believed was that civilization, science and progress emanated from the west. They believe, "New science like bacteriology and parasitological were beginning to make a splash in Europe" (47).

During colonial period in India, every discipline is handled by elitist historiography of the colonial. Later on, even after the Independence, the elitist nationalist prioritized them as their principal protagonists. According to the Subaltern Studies Group, both minds share the prejudiced that the making of the Indian nation and development of human consciousness are the result of elite achievements. These achievements are valorized to British colonial rulers, administrators, policies institutions and cultures. There was a thought that "Empire did everything it could to get in his way" (48). In the same way the bourgeois nationalist history nations was successor to the colonialist history as both of them ignored the activities the subaltern people did independent of elite groups. However, the colonialist historiography did not record their deeds and actions.

The novel depicts subaltern characters. These people are the real working class people of India who are "looking for a job and a roof over their heads" (122). The Britishers have dominating stereotypical notion about the people and their home

country. The laboratory of the Presidency General Hospital of Calcutta is the place where Ronald Ross made the final breakthrough in his research. The fact Ross discovered the cause of malaria in Calcutta, has deeper connotations for those who are conscious of colonization. Ronald Ross, a British scientist, argues, "In the whole world It was India with all its filth, garbage, and puddles that nurtured sufficient number of mosquitoes to make the research possible" (49). Since mosquito cannot be taken as a symbol for cleanliness, the place where it resides is naturally dirty. The above statement clarifies the nature of colonialist elitists and Ronald Ross is the representative of the elite group.

In this novel, Ghosh deals with both the elite characters, like Ronald Ross, D.D Cunningham and subaltern characters like Lakhan and Mangala. The relationship between them is the relationship of power. These two subaltern characters were picked up by Dr. D.D Cunningham from him as research assistants. Later on, they pushed Ronald Ross in his final breakthrough for malaria research. They served him as faithful servants. Laakhan, as a faithful servant, expresses "I shall have a word with Cunningham-sahib and with his permission" (121). But Cunningham " would offer them room and board in exchange for work-nothing fancy, just a minimum-wage kind of job around the lab, sweeper, dhooley bearer that sort of shit" (201). He ordered them that they would live in those outhouses near the hospital wall, and help around the lab. The British scientists also regard the railway station as a poor area. As Cunningham expresses his view "That's the place to go if you need a willing worker: always said so-it's full of people looking for a job" (122). Thus, India and native subaltern are appeared as inferior in the hands of British elitists.

Though Laakhan and Mangala are serving Ronald Ross honestly, they are segregated. Ross tells "mostly he does not even know their names, hardly even their

faces; he doesn't think he needs to. As for who they are, where they're from and all that staff, forget it, he's not interested" (58). He always treats Laakhan a dhooley-bearer and Mangale as a sweeper-woman. He never tries to give their importance. Likewise Cunningham also expresses his view in front of Elijah Monroe Fareley, a colleague of him, not to pay attention towards her. He tells Don't pay her any attention 'because' 'She's a little touched...' (119).

They not only take interest in social surrounding but also in their linguistic pattern. They try to show their superiority by misspelling the actual name of the Indian people. To prove that, J.W.D. Grigson, a linguist belongs to Britain asserts the name of Laakhan in his pronunciation as 'Lutchman'. He calls Laakhan as 'Lutch'. He makes him to pronounce the word 'Lamp' as 'Laltern'. He thinks Lutchman did not pronounce the word as he should have [...]" (79). Similarly, Ross also spells the name of Laakhan in a British kind of way. He calls Laakhan as "Lutchman" or "Luitch" (201).

The novel also deals with subaltern immigrants, who get marginalized in the alien land. Long back when Murugan, the central character belongs to subaltern immigrant, worked for Life Watch, a global public health consultancy, in New York, he had written a summary of his research in an article entitled, 'Certain Systematic Discrepancies in Ronald Ross's Account of Plasmodium B'. To his shock Murugan received a very hostile response from the scientific community. All scientific journals rejected the paper. The scientific community "brands Murugan as a crank and an eccentric" (31) because of his outrageous theories, and the History of Science Society subsequently takes "the unprecedented step of revoking his membership" (31). His behaviour is characterized by his colleagues at Life Watch to be "erratic and obsessional" (36).

Similarly Antar, Murugan's colleague, becomes the victim of bourgeoisie elite. When he wants to help by searching different materials to Murngan, he gets abusing words of the Director of Life Watch. He scolds Antar "you fucking son-of-a-bitch. You can't do this" (197). Antar tries to explain in defense of himself but the director doesn't listen to him. He only wants to know about the work which is given to Antar to do.

Phulboni, a subaltern writer, writes a set of stories called "The Laakhan Stories". They are published in an obscure little magazine. But these stories are not reprinted because they carry the voice of subaltern people. After the first publication, the literatures consider that they are written in the form of elaborate allegory. Fictional description is given there. They view "they deal with each character being different but also the same and all of them being mixed up and so on" (93). Thus, every one forgets about them. Those people are well-established people who, like British elitist, don't take interest in them. Here they are the representative of elite groups.

The British elite also inferiorized the Indian working class people by terming irrational. They felt that these people did not have scientific basis. They believed in ghost/spirit and they are highly superstitious. In the same line, Farley, as a elite colonialist character, describes in his account "there was an underground network of people who came to see Mangala may have believed that she was a witch or a magician or a god or whatever" (204). He concludes that India has a very deep and long tradition of the occult. Perhaps that is why "primitive people thought of malaria as spirit-possession" (205). This shows Western sense of superiority upon Indian illiterate people.

The Calcutta Chromosome as a Subaltern Text

Amitav Ghosh, in his novel *The Calcutta Chromosome* rewrites the historiography of the subaltern people or a history from below through the characters Murugan, Mungala and Laakhan. While proposing the alternative history, he undermines the authority of colonial narratives. Not only does the novel present the official history of malaria research as an elaborate façade, but it also suggests that this façade was constructed by the colonized who used the colonizers as unwitting pawns in their scheme. Furthermore, in deconstructing one history and constructing another, Ghosh disputes the conventional binary between the centre and the margin, the colonizer and the colonized the master and the slave, the elite and the subaltern. He clearly recognizes that power remains the prerogative of the colonizer, but he also explores through fiction the ways in which the colonized, the subaltern, can subvert this power.

In this novel, Ghosh has tried to give an answer to west's monopoly over scientific discoveries and invention. He deconstructs the aura around Ronald Ross, the British scientist, who found the cause of malaria. He provides the most obvious case of a subaltern figure exercising power, even if this figure remains voiceless. The subaltern character plays the role of an antagonist rather than a protagonist. While providing the alternative subaltern history, Ghosh makes the subaltern classes the principal characters and also makes them powerful. For example, Murugan is the central character, who is subalternized in numerous ways by the elite society both "eccentric" and "ex-centric" (31), re-examines the history of late nineteenth century malaria research. He works for an international public health company called Life Watch. The organization called Life Watch is taken as elite organization. Murugan has had a life-long obsession with the history of malaria research. He convinces that

Ronald Ross, the British scientist, who was awarded the 1902 Nobel prize for Medicine for his work on the life-cycle of the malaria parasite, was not a 'lone genius' (39). Ross is a brilliant British dilettante who ontstripped all of the contemporary scientists in the field. Murugan believes that there is a secret history that has been erased from the scribal records of the colonial society and from medical historiography more generally. He discovers all the missing or subaltern characters whose actions and deeds are not recovered. He has devoted himself to uncovering the hidden truth. He is described in the text as 'Missing subject' (19).

The novel teems with other subaltern people like Murugan. The international water commission, through Ava and Antar, are in the process of creating a vast archive of information/knowledge in the hopes that they will be able to use it to their advantage in the future:

They 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. In stead of having a historian sift through their dirt, looking for meanings, they wanted to do it themselves: they wanted to load their own meanings. (16)

The above passage mingles with the idea of Ranajit Guha in relation to subaltern history. They are making their history independently and trying to record every detail of what they had done in their own way.

Murugan, for his part, is involved in a similar process in documenting the development of Ronalds Ross' malaria research. Murugan estimates that Ross "spent about five hundred days altogether working on malaria. And ...I've tracked him through every single one of those five hundred days: I know where he was, what he

did, which sides he looked at; I know what he was hoping to see and what he actually saw; I know who was with him, who wasn't with him"(44). Being as a subaltern, he tries to understand the consciousness and the actions taken by the subaltern people on their own, independently of any elite initiatives. Of course, the only research Murugan has been able to catalogue Ross's life is that Ross himself wrote everything down: "This guy's decided he's going to rewrite the history books. He wants everyone to know the story like he's going to tell it; he's not about to leave any of it up for grabs, not a single minute if he can help it" (44).

Murugan spends much of the novel offering up his knowledge to various examiners including Antar and Urmila. In his attempts to have people understand his theories he willingly offers up his knowledge to the scientific community which in turn leads to his inscription by the dominant discourse. Both the summary of his research in an article entitled "Certain Systematic Discrepancies in Ronald Ross's Account of Plasmodium B" and its revised version "An Alternative Interpretation of Late Nineteenth Century Malaria Research: is there a secret History?" have inscribed him as "a crank and an eccentric by the scientific establishment" (31).

Positioned as a deviant from accepted norms, Murugan is no longer a threat, relegated to the margins; he is no longer taken seriously. There is little outercy, for instance, when the History of Science Society revokes his membership. His speaking "openly about his notion of the so-called other-mind" leads to his estrangement from "several of his friends and associates" (31). Despite the fact in the context of the novel his theories seem to be correct, voicing his opinions and providing evidence leaves him almost completely powerless by the end of the novel.

The counter-scientists, on the other hand, take the opposite approach in dealing with the scientific community. By working in secret and remaining silent

they are able to pursue their research without the powerlessness that normally comes from being marginal or eccentric/ex-centric. As Murugan sees it:

Fact is we're dealing with a crowd for whom silence is a religion. We don't even know what we don't know. We don't even know who's in this and who's not; we don't know how much of the spin they've got under control. We don't know how many of the threads they want us to pull together and how many they want to keep hanging for whoever comes next. (180)

Because the counter-scientists rarely impart any of their knowledge to anyone, the dominant scientific discourse has nothing to use against them and can not control or inscribe them the way they do Murugan. Like Murugan, these counter-scientists remain on the margins of the scientific establishments. Unlike him, however, their marginalization is by choice and thus does not leave them powerless. It allows them the freedom and the power to take the scientific inquiry off in directions unfathomable by conventional scientists. While Ronald Ross does his malaria research, the counter-scientist are also "working with plasmodium falciparum but in different way; away so different it wouldn't make any sense to anyone who's properly trained" (89).

The counter-scientists are in such control of the knowledge exchange process that they have almost managed to reverse the power structure. The supposedly marginal counter scientists manage to put themselves in the position of authority by systematically releasing bits of knowledge in order to have the conventionally trained scientists unknowingly offer up move in return. According to Murugan, the counter-scientists carefully release knowledge to Ross by making" it look like he's found out for himself" (89). They do so in the belief that to impart this knowledge to Ross is to alter it and push the inquiry to the next level: "If it's true that to know something is to

change it, than it follows that one way-of changing something of effecting a mutation, let's say-to attempt to know it, or aspects of it" (88).

Silence is something imposed by the state to control its subjects. It somehow must be overcome if the oppressed hope to gain any knowledge and/or can sometimes subvert the power structures or even be a source of power in its own right. According to Murugan:

The first principal of a functioning counter-science would have to be secrecy...It would have to use secrecy as a technique or procedure. It would in principal have to refuse all direct communication, straight off the bat, 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. (88)

In this way, the silence as practiced by the counter-scientists becomes a means of resisting the dominant discourse of colonialism and European scientific research. The scientific establishment is 'rules' constantly never around Murugan and the counter scientists, and around their respective endeavors. Murugan especially is interested in the unspoken new knowledge that the counter-scientists are protecting behind their silence.

Like Murugan, the group of counter-scientists who are both at the centre of the novel and at the centre of malaria research and discovery operate and exert their control from the margins of society and scientific discourse. The woman in charge, Mangala, is characterized by the colonial scientists as deviating from the psychological norms- "don't pay her any attention," Cunningham said to Farley, with a wink, 'she's a little touched...you know" (119). Like wise the work she is overseeing

is often set up in binary opposition to the accepted centre. For Murugan, just as there are "matter and antimatter," "rooms and anterooms and Christ and Antichrist," there are "science and counter-science," Practiced by "fringe people, marginal types [who are] so far from the mainstream you can't see them from the shore" (88-89). The discoveries of the counter-scientists always occur outside of the scientific centre, subversive alternatives to the accepted European scientific experiments. Murugan even uses the 'other mind' theory to describe their work. That it is Murugan, a marginal character in his own right, who positions these people as peripheral says a great deal about just how far removed from the centre they are.

Of particular significance to the relationship Ghosh established between the margin and centre in the novel is Farley's visit to Cunningham's lab to test the Lavern's theories. While in the lab, Farley becomes a first-hand witness to the counter scientists' literal displacement of the centre and the shifting of power towards the margins. During his first day in the lab Farley sees, through a reflection in his glass of water, that it is Mangala the one, according to Cunningham, who is "not all there" and "who is choosing the slides and in effect running the lab" (122). Determined to find out what Mangala and Lutchman are doing, he decides to return the following day. Upon arriving the next day, Farley notices "a great deal of activity in a nearby anteroom" (125). Just as on day before he sees nothing of importance in Cunningham's slides, slides that are results of experiments made in what "was once one of the best-equipped research laboratories in the whole Indian subcontinent" (164). Farley soon realizes that everything of importance going on in the lab is occurring in the anteroom and not in the laboratory proper. After threatening to stay all night he watches Lutchman snatch "up a set of clean slides," then slip away to the anteroom:

Once he was gone, Farley made his way silently across the laboratory. Flattening himself against the wall, he crept towards the door until he had maneuvered himself into a position where he could look into the anteroom without himself being detected. Farley had steeled himself for anything, or so he thought, but he was unprepared for what he saw next. (127)

Here, with the separation between room and anteroom, the figurative binary opposition between margin and centre becomes literal. These peripheral rooms are the counter-science occurring there in become of central importance and in turn displace the colonial lab and its conventional approaches to science from its position of authority.

What Farley has discovered is that Cunningham's work on the mosquito parasite is being hampered by assistants he has picked up at Sealdah Railway Station in Calcutta: notably Laakhan and a woman called Mangala. They both are poor and illiterate people. They both are servants who serve the colonial scientists namely Cunningham and Ross. Murugan says "while he is recouping Lutchman succeeds in planting a crucially important idea in his head" (65). But after Lutchman plants this little seed, something begins to take shape in Ross's' head. Further Lutchman says "I've tracked him in the right direction" (64).

Similarly Mangala appears to be both the high priestess of a secret medical cult offering a cure for syphilis and the brain behind the discoveries that will eventually lead to Ross's winning the Nobel Prize. Murugan says. "There was an underground network of people who believed that she possessed a cure [...]. These people who came to see Mangala may have believed that she was a witch or a magician or a god or whatever [...] she offered some kind of hope" (204).

Cunningham picks her from railway station and to train her so she can work in the lab. He also teaches her how to read and speak English. But there is this one person, a woman, who takes to the lab like a duck to water. Murugan says "she was a head of Cunningham in her intuitive understanding of the fundamentals of the malaria problem" (202). This expression clarifies that she possesses intuition quality and she knows a whole lot more about malaria than Cunningham could ever have taught her. Unlike colonial scientists Cunningham and Ross, she doesn't carry a shit load of theory in her head and doesn't have to write papers or construct proofs. She doesn't need to read to zoological study to see that there is a difference between culex and Anopheles. She doesn't really care about malaria and its formal classifications. However, it is Mangala who "got behind Ronald Ross and started pushing him towards the finishing" (203). She is working towards something altogether different. Murugan says "she was actually using the malaria bug as a treatment in another disease" (204). So Ghosh's narrative discredits the western scientist and instates Indian subaltern in his place. In other words he writes a history from below called marginal space.

Murugan's research leads him to the conclusion that Mangala and her associates hindered Cunningham's research so that he will be replaced by Ross, whom they can use as vessel for their discoveries. These discoveries involve a counter-epistemology through the dismantling of the shadow-lines that construct nations of autonomous selfhood. Mangala's discovery of the means by which malaria is transmitted has come about as a by-product of her real research interest. Working outside the straitjacket of western empirical methodology, she has been attempting to evolve "a technology for interpersonal transference"(90), a means of transmitting knowledge "chromosomally from body to body"(91). This expression clarifies that

the subaltern is at least as powerful as western scientist. This counter science is characterized as an Eastern challenge to the exclusiveness of western discourses which deny the others capacity for utterance.

Murugan has spent many years on his extensive research. His clues indicate that Ross's discovery was only a small part of the overall project of Mangala. By 1897 Mangala had run into a dead end. She tried again and again to stabilize and catch the chromosome in the process of transmission. But she failed. So, Murugan tells:

She needed Ross's help; she actually believed that the link between the bug and human mind was so close that once its life-cycle had been figured out, it would spontaneously mutate in directions that would take her work to the next step. (208)

Here, breaking the law of silence she plants crucial clues in Ross's head and took the research in the right direction. Ross is just a tool. Murugan also believes "Mangala and Laakhan did succeed in transplantation of the Calcutta Chromosome" (209). In fact, Laakhan himself is a living example of interpersonal transference of the Calcutta Chromosome.

Further Mangala follows the path of "Bhakti Marg" (125), whereas Ross follows the other path called "logic or science" (94). The two paths may seem contradictory but in reality are not so. They are complementary. In fact, Ghosh ratifies and endorses Managala's path. Logic without intuition is incomplete. Ross's research has been attributed a secondary place while Mangala's methods have been hailed as perfect.

By bringing the underprivileged to the focus of attention, Ghosh is hinting at the current justified trend in the field of scientific research where the rights of subjects are fervently advocated, especially in the field of social medicine, health, hygiene and control of epidemics. Human or animal subjects who are experimented upon are perhaps more important than the researcher. Murugan says "it was Laakhan who offered to drink Ronnies' medicine first" (102). Ghosh tries to bring recognition to those who do the spade work for all the grand discoveries. Another recent trend suggests that health and bioresearch can be conducted more economically and efficiently if local people are given principal place in it. They know their soil better than those sitting in saniticed laboratories and working on fanciful hypothesis. For instant, Murugan admits that "his interest in this rather obscure subject initially had a biographical origin" (30). This biographical connection has something to do with the obsessive nature of Murugan's interest in this subject.

Irrationality had been a common colonial metaphor for colonized peoples, including Indians. This novel suggests that different noetic modes may operated in colonized-subaltern societies. These different noetic modes are not comprehensible within narrow and Eurocentric version of rationality. The discovery by Mangal and her Subalterns, their manipulation of Rose, their ability to stay a head of the latest research on Malaria cannot be dismissed as irrational even though it may not be the same as what we understand by rationality. Thus subaltern acts are not moored outside the circumference of human agency.

Tellingly, the climax of the novel is a scene that would be described as a scene of "human sacrifice" (205). This act indicates subaltern irrationality, mindless, herd-like and barbarous in colonial and neo-imperial discourses. In this novel, *The Calcutta Chromosome*, significantly, the human sacrifice is taken over and re-in-

scribed within the subaltern's agency and the subaltern's discourses. From that perspective, it becomes a form of discovery. of furthering life and of planned, purposive activity. It becomes in a way the exact opposite of what barbaric and irrational stand for-a planned means of personal improvement and collective wellbeing.

The failure of Ronald Ross or D.D. Cunningham to discover the 'Calcutta Chromosome' and the ability of mangula-Laakhan to do so stems from the failure of the colonizer's concept of rationality in comprehending the colonial subaltern. For instance, what Ronald Ross sees is not all, is not even close to what can be seen by others. Not only the alternative character of the malaria parasite but even subaltern resistance and agency remain unseen by Ross and his class. Subaltern agency remains even when it enables Ross's discovery: in the form of Abadul kadir's blood that "guides him through all the critical phases of his research" (61) or as Managala and Laakhan. The narrative of Mangal's planning and discovery and Lutchman's actions to what Ross actually sees. The narrative quotes the following stanzas from a poem (on his discovery) by Ross:

Half stunned I look around

And see a land of death

Dead bones that walk the ground

And dead bones underneath;

A race of wretches caught,

Between the palms of need

And rubbed to utter naught,

the chaff of human seed.. (35)

However it is this 'chaff of human seed' which have not only beaten Ronald Ross to the post in the race to discovering the cause of malaria, they have even led him by the nose: as Murugan puts it, "what gets me about this scenario is the joke. Here's Ronnie, right? He thinks he's doing experiments the malaria parasite. And all the time it's him who is the experiment on the malaria parasite [...]" (67).

'Narrative agency' is thus returned to the colonial subaltern with a vengeance and this is not agency through the elite circles'. The agency of getting assimilated by European discourses becomes rational or 'civilized'. The subalterns are from outside the elite circles Mangala and Lutchman probably know nothing more than a few words of English. They have been picked up from among the homeless by a European scientist who avoids "college kids as helpers" (242).

The subaltern people have their own world views. They believe in spirits, ghosts and witches. They have their own way of treating their illness. They have herbalists and witch-doctors, who conduct ritual rites to cure their illness. During 1890s syphilis was untreatable and incurable disease. In this novel, people regard managal as a "witch doctor or magician or god and she possessed a cure" (205). She treats the syphilitic patients through ritual performance. Murugan tells "A number of people had gathered [...] They were squatting in circle, around a fire, chating to the accompaniment of hand-had brasss cymbass, as through in preparation for a ritual or ceremony "(125).

Mangala is the life giver as well as the anninilator. She is the other name of the great mother kali who comes in various forms in Indian mythology. She is the archetypal nurturer as well as the terrible mother figure. She is from the very lowest rung of Hindu caste system. Here is a desired reversal of roles. Mangala of the

sweeper caste is worshipped in blood and flesh as well as years after as an image. Definitely such a view is rather subversive to the imperialist rational world view.

Ghosh's language use appears remarkable in the present novel. It is a consciously crafted style inflected with necessary Indianism. It remains aware of the problematic position of English and through this awareness avoids appropriating India and the subaltern classes from a position of elite privilege. Language used by a subaltern class from the position of elite privilege. Language used by a subaltern character is sometimes reported verbatim, but without exaggerating their duration, situation or effect: "The boy bared his teeth in a smile." "Change the dollor?" he said, "Good rate". (34). This example is not staged English. The duration is limited, the effect is not exaggerated and context explained by urban coolie boy is speaking broken English to a Babu tourist. Unlike this boy, Mrs. Aratounaium and Urmilla's English is different. Their English is so called literay and learned English whereas Murugan's English is coloquial. He often uses the word like "na, nahin, nyet" (34).

Women as Subaltern

The present novel represents voice of subaltern people. It aspires to make a room for occluded worldviews and experiences. It, however, fails to speak on behalf of women. It does not identify women as another significant subaltern group. As a text that purports to speak of behalf of that subaltern classes, it does not create as much room for the woman as it should have. Ronald Ross, the colonial scientist, appears to be a discoverer and who makes a revolutionary advance in the science of microscopy, but it seems he has been discovered controlled by Mangala and her followers. But Mangala, the subaltern woman, does not occupy a central role in this discovery. Rather Cunningham, Ross's Colleague, expresses his views by saying "She is just the sweeper-woman", "Don't pay her any attention" (119). This shows

the harsh oppression and domination towards her. Like male subaltern, she is ignored by elite historiography.

Even in her own society, the native people despise Mangala as a witch-doctor. They think she possess supernatural power. They explain “she was a witch or a magician or a god or whatever” (204). Having a doubt on her witchcrafting, they say “No smoke without a fire [...] Mangala had a cure, or a half-way effecting treatment” (204). Like the colonial treatment towards her the people of her society also do not believe upon her. She is considered worthless. She represents the subaltern women, whose voice and deed are simply ignored in the society despite the fact that they make as much contribution to the society.

Like Mangala, Urmila, another female character, falls in the trap of Murugan through whom Ghosh is trying to rewrite the subaltern history. Murugna tells Urmila that she is the “chosen” (253) one of Mangal’s contemporary incarnation and asks her to promise, “that you’ll take me across if i don’t make it one my own” (253). Urmilas’s investigations have played a significant part in Murgan’s detective-work, but hitherto she has not seemed to occupy a central role in the process of discovery. Now Murugan sees her as having such a role and explains “You see for them the only way to escape the tyranny of knowledge is to turn it on itself. But for that to work they have to create a single perfect moment of discovery which the person who discovers also that which is discovered” (253).

When Cunningham visits the Sealdah Railway Station, looking for his assistants esp. Mangala, he notices that “her depression and poverty were not hers alone but were suffered by all women, all women of the railway station” (122). It, too, depicts the common suffering of the poor women. He further notices that “she was untrained and uneducated, her mind’s been wasted-by disease” (123). This is not

her problem but all poor women of the railway station. Sufferings emerge as a source of their integrity.

Urmilla's mother works as much as her father does. When they are in debt, the creditors, who are afraid of father, harass her. She is exhausted with worry. However, unlike her husband, neither can she pay back the loan nor can she take resort to drink as he does. Mother, a pitiable figure, falls asleep on the bed in exhaustion. When father arrives with his alcoholic breath, he abuses her. He does not acknowledge her contribution to family. Instead he exaggerates his own sufferings. He vomits his anger on her in these terms: "I have been everywhere in the world looking for a job feed us, and you are asleep? Wicked women that you are!" (111). Her father begins spending his time outside home, and mother is worried about it. When she asks him about it, her father gets angry, and starts "hitting her" (112). Later on, he, however, asks for forgiveness. He loves her all the time. Despite his love for her, he fails to see her equal to him, and always regards her inferior to him. That's why he always abuses and tortures her. He very often pours his anger and despair on her. The male chauvinism is obvious in his behavior towards her.

Urmila is a news reporter. Like her mother, Urmilla very often falls into the abyss of despair. She can not earn much because of thugs. Her father always abuses her. She has nothing to live with except poverty and oppression. She is "tired of this life" and She wants "to die" (111). Her father expresses his views:

At last You'll be able to give up this stupid job and stay at home. Everything will be paid. May be we can even get you married before it's too late. We can put an advertisement in papers [...] that her time, was running out, her hair was thinning, she looked older than she

should; the neighbors were taking about how late she got home [...]

(110,111)

It reveals the despair of a poor woman, whose voices and deeds are rebuffed by the patriarchal society. The women are perceived from a typical male's perspective. The woman has been turned into an object of the male's desire. She, as we can argue from Spivak's perspective, is either gazed from above as a sexual object or from below as a goddess, a sacrificial being. While talking about Ronald Ross, Murugan thinks "his hand cupping her breast and his thumbnail rubbing on her nipple [...] and large breasts exuded a shameless libidinous potency" (183). This extract brilliantly presents the combined perspective of a male towards a woman: gaze from above and below at the same time. It is clear that the woman is turned into the male's desire. No matter whether she is gazed from below or above.

All the time Urmilla provides materials for Murugan. Murugan, however, persists on, and undermines her. He thinks that women are incapable of understanding things like politics. Murugan expresses his views towards her by saying "Are you kidding?" (178). He goes on telling her that she "can't understand" (179). She replies, "That's what you men say when you don't want to tell the truth" (179). Her witty remark depicts the hollow complacency and superiority of males like Murugan.

Now, it is rather conspicuous that the women, in this novel, have been represented as subaltern group. Mangala and Urmila represent the women, whose voice and deed are simply ignored in the patriarchal society despite the fact that they make as much contribution to their family as well as society as their male counterparts do. Like male subaltern called Laakhan, Mangala is ignored by elite historiographies. She, therefore, gets doubly subalternized. In conclusion, she is a representative of a

typical subaltern group. However, through the very process by which they are erased within the narratives of patriarchy and elitist historiography, they emerge as subaltern women.

IV. Conclusion

Good wine needs no bush and a good play needs no epilogues, to good wine we do supply bushes and good plays often prove better with good epilogues. It is early in the day to claim any sort of epithet, creditable or discreditable, for this thesis on Ghosh's thought, but after a comprehensive study of his novel it will be appropriate to sum up his ideas of rewriting the subaltern in as few words as possible.

The present thesis attempts to study Amitav Ghosh's celebrated novel *The Calcutta Chromosome* to see whether it represents the voices of the Subaltern people. In both its form and the content, the novel is deeply concerned with the consciousness of the subaltern people. It revolves around the subaltern people like Murugan, Mangala and Laakhan. In this novel, there is a British scientist named Ronald Ross who made the final breakthrough in the malaria research. While doing research in India in 1890s, he took the help of native India poor people named Laakhan and Mangala who are illiterate and working around the lab. Though they are working like servants, they fully support the colonial scientists by providing the materials they need. When Ross comes to India, he does not have any idea about the malaria parasite and the way it is transmitted. During the initial phase of research, he falls into the wrong track. But due to more potent power, Mangala and Laakhan push Ross in the right direction, so that he finds a breakthrough. For his work on the life-cycle of malaria parasite, he wins the 1902 Nobel Prize for medicine.

All the time, Mangala and Laakhan help Ross a lot and give the insights. But they get negative response from Ross and his colleagues. They are not only treated as uncivilized and other but also underestimated. The colonial scientist believes them to be irrational because they believe in magic and spirits. The colonial authority did not record the actions and deeds performed by both Mangala and Laakhan in the colonial

medical historiography. In *The Calcutta Chromosome*, Ghosh rewrites that colonial history through the perspective of an Indian called Murugan. Murugan, the central character, re-examines the history of late nineteenth-century malaria research. He has had a life-long obsession with history that leads him to the conviction that Ross was not a brilliant and genius scientist. He begins to publicize his ideas about the 'other mind' behind Ross's discovery and claims that it was not his discovery at all.

Murugan brings into the fact that some persons systematically interfered with Ross' experiment and pushed Malaria research into the right direction. He investigates into the historical event and reveals that someone else was already engaged on a research and that information were handed over secretly to Ross by an Indian conspirator.

Murugan's research leads him to the conclusion that Ross and other western scientists working in the field of malaria research in India have manipulated their helpers, mainly a woman named Managala. Mangala, in Murugan's research, appears to be both the high priestess of a secret medical cult, offering a cure for syphilis, and the brain behind the discoveries that eventually led to Ross' winning of the Nobel Prize. The Cult's discoveries involve a counter-epistemology, which promises a form of immortality through the erosion of Western conception of discrete subjectivity. Mangla's discovery of the means by which malaria is transmitted has come about as a by-product of her real research interest. Working outside the strait-jacket of Western empirical methodologies, she has been attempting to evolve a technology for interpersonal transference, a means of transmitting knowledge chromosomally between different people's bodies.

The novel contains sufficient references to the incidents of Indian's involvement in the malaria research and the resistance to the British colonial historiography. By re-interpreting historical fragments, Ghosh undermines the

authority of colonial narratives. By subverting the authority of colonial historiography, Ghosh depicts the possibility and potentiality of the subaltern people to speak for themselves. Ghosh provides the most obvious case of a subaltern figure exercising power even if this figure remains silent. He makes the subaltern characters resist against the elitist domination. While resisting the elite discourse, Ghosh rewrites the colonial historiography through the perspective of colonized-a history from below.

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