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Title

'OPHIOLOGY OF INDIA': SNAKES, COLONIAL MEDICINE AND ORIENTALISM

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ABSTRACT:

This essay focuses on the emergence of a medical-zoological discipline in colonial India under the auspices of the Asiatic Society of Bengal. This historically unheeded institutional exercise, framed as 'Ophiology of India', fashioned a particular medical ideology and played a significant role in the conductive process of colonization. 'Ophiology of India' not only gave enough credence in confronting an 'alarming disease', but also became an integral part of colonial Orientalist scholarship. Medicine and Orientalism both became important forms of colonial knowledge and was conveniently employed by imperial authority for the purpose of command. In course of discussion this paper both employed and questioned Saidian insight of Orientalism.

Keywords: Snake-poisoning, 'Ophiology of India', the Asiatic Society, tropical disease, indigenous medicine, snake-stone, colonial medicine, 'Scientific Orientalism'.

INTRODUCTION:

The snake fauna of Indian subregion is highly rich, diversified and exists in almost all its biotopes. From human habitations to warm seas, semi-deserts, shrubs, forests, marshes, banks of rivers and lakes, creeks, estuaries, hilly regions and even the Himalayan glaciers, one can find snakes everywhere in India. The land, climate and vegetation of this country are favourable and ideal for snake habitats and there are fewer than 240 species of snakes contained in 10 families and 69 genera (Murthy, 1999: 17). In India, as elsewhere in the subcontinent, though few snakes are harmfully poisonous, the disease of snake-bite is considered being responsible for a large number of human illness and eventual deaths. Till very recently, every year over 15,000 people reportedly die due to snake-poisoning in India (Warrell, 2005: 10). For this age-long reason snakes are considered by many as perhaps the most dreadful of all living creatures. Interestingly, in the colonial period, when the alien ruler was first confronted with venomous Indian snakes and became observant of their envenoming power, it inevitably created a sense of constitutional emergency among them, because Britishers and their 'native' partners both became frequently victims of the deadly disease of snake-poisoning. Yet, due to long coexistence with these species, Indian had their own traditional preventive measures and curative treatments; but colonizers had little medical-zoological knowledge and insufficient equipments to regulate 'fatal

impact' of this disease and therefore it appeared as a virulent 'disorder' to them and posed a really grave obstacle to the continuance of colonial existence.

Therefore, in its own existential interest colonial authority desperately tried to tackle every threat from Indian vipers by taking urgent and positive action and consequently emerged a new and unco domain of medical-zoological science, termed by an unknown essayist as 'Ophiology of India' (Anonymous, 1835: 217). The ward 'ophiology' is derived from the Greek *ophis*, meaning snake or serpent, and the suffix, *logos*, means knowledge. Axiomatically, ophiology deals with scientific study of snakes, including their natural history and behaviour. But there was specific uniqueness in colonial employment of 'Ophiology of India'.

'Ophiology of India' was a collaborative endeavour of colonial zoology and medicine, orchestrated by the first scientific institution of colonial India—the Asiatic Society of Bengal (1784)—to encounter the 'disease produced by the bite of a serpent', till then unacquainted but mortally fatal and often challenging to day-to-day activities of the colonizers. This new institutional discipline was not merely created as a branch of natural history or behavioural science rather appeared as a hegemonic medical epistemology in the colonial period, which helped solve some of the impertinent problems confronted during the process of expansion and consolidation of colonialism and for a long time it continued to reflect the interest of the colonial authority. Actually, colonial medical-zoological study about venomous Indian snakes was closely related to the medical need of the Empire. The colonizers were fully informed about the great strides medical science was making in their home country and were quick to realize the role and importance of medicine in empire-building. Under the congealed patronage of the Asiatic Society, basic knowledge for understanding and regulating the problem of snake-poisoning was constituted in the name of 'Ophiology of India' and thus it became an aid, ensured comfort to the colonial power and gradually came to be a potent factor in the British intention of 'Imagining India' (Inden, 1990). But as we shall see, apart from its decisive role in mediating power relationships, 'Ophiology of India', as scientific medical-zoology, also played a propitious role in the colony.

In this context the present essay intends to scrutinize the process of colonial construction of the disease of snake-bite and its immunization and consequently the emergence of a 'new' medical epistemology. We shall also inquire how Western medical science clubbed with

zoological knowledge to shape colonial ophiological agenda and in what way the institutional exercises served it. Let us examine how 'Ophiology of India' occupied a significant place in the colonization of India.

INSTITUTIONALIZATION OF OPHIOLOGICAL EMPIRICISM:

Beginning of ophiological regimen in British India dated back to the last quarter of eighteenth century, under the auspices of a Scottish surgeon-naturalist and fellow of the Royal Society of London, Dr. Patrick Russell, who as a servant of English East India Company (EEIC), was first to systematize the knowledge about Indian vipers and later known as the 'Father of Indian Ophiology' for his pioneering efforts (Vijayaraghavan, 2005: 1). But without any congealed institutional promotion, individual efforts regarding ophiology as well as other 'new' scientific and medical disciplines could not exactly play the decisive role as expected by the colonial authority and therefore necessity for existence of a scientific organization was strongly felt. Establishment of the Asiatic Society of Bengal in 1784 undoubtedly bridged this gap. In the pampered nourishment and countenance of this foremost colonial institution the excellence and brilliancy of these diligent colonial surgeon-naturalists and adventure-scientists gained a perfect platform to flourish. Scattered individual amateurism certainly stepped into an institutional formation.

A recent scholar correctly argued that "The institutionalization of Western science in India commences for all practical purposes with the establishment of the Asiatic Society of Bengal in 1784" (Visvanathan, 1985: 9). The history of the institutionalization of scientific knowledge under the ambit of the Asiatic Society does not need much rehearsal; its main signposts are familiar enough (Visvanathan, 1985: 8-38; Kejariwal, 1988; Baber, 1998: 136-183; and Chakrabarti, 2004: 27-94). The idea of forming the Society was conceived by William Jones, the greatest Orientalist of his time. When the opening ceremony of the Asiatic Society consumed its emergence as a pioneer learned institution of Indian subcontinent, the founder president characterized the latent object of the Society as "inquiring into the history and antiquities, the natural productions, arts, sciences, and literature of Asia". He added, "If now it be asked, what are the intended objects of our inquiries within these speacious limits, we answer, Man and Nature; whatever is performed by the one, or produced by the other" (Jones, 1784: 2-3). In

pursuit of scientific knowledge and creating some scientific bodies within it, the Asiatic Society methodologically and epistemologically followed the model of the Royal Society of London (1660). Following metropolitan model, the emergence of the first Indological institution was colonizers' zeal and effort to assemble talented Europeans' 'united action' in a converging forum to accumulate scientific knowledge—which was 'stupendous' and 'rare' to European experience and while achieving this particular aim they actually fabricated a long-desired platform for British colonial hegemonism.

Actually, the formation of modern institutions was an important aspect of British colonialism in India. During the epoch of imperial expansion, colonial government established a number of natural and social agencies to manage 'Man and Nature' of their empire and planting of the Asiatic Society was their first movement in this direction. This rhythmic motion was fostered by the belief that institutionalized knowledge about the colony would facilitate a wider control over it and provide a solid footing to the power that the colonial authorities exercised. Therefore as an adjunct of power the Asiatic Society tried to construct and preserve knowledge in order to protect the interest of the British Empire and also to rescue them from every 'threat' concealed in Indian condition. And imperatively, the Asiatic Society's ophiological empiricism was bounded by the same grand intention.

From the very beginning, the Asiatic Society—progenitor of a host of scientific organizations—patronized and dominated the canvas of ophiological investigations in India. The Society's periodical *Asiatic Researches*, and its successor *The Journal of the Asiatic Society of Bengal* provided a forum for the communication of the results of scientific and medical observations, explorations and researches. These scientific publications were undoubtedly a reliable index of the nature and structure of the scientific and medical activities in progress but simultaneously remained an integral part of colonial cultural technologies of rule. Because one of the *structural formulae* of 'scientific colonialism' was accumulation, construction and circulation of scientific and medical knowledge within its numerous inducing institutions and the contemporary scientific journals enormously facilitated it.

In an initial period of about fifty years, six papers in ophiological science found place in *Asiatic Researches*, which compared evenly with empirical research papers of other scientific disciplines and in later years this number progressively increased. From the second volume of

the *Asiatic Researches* these snakological accounts—comprising of various topics such as possible medical treatment of snake-poisoning, snake taxonomy and nomenclature, toxicology, indigenous drug production etc.—started appearing and gained considerable importance. It must be admitted that standard of these papers compared very favourably with that of the European journals.

The Asiatic Society rendered invaluable service, particularly through its journals, yet the decided role of the Society was not merely an auspicious ceremony for mankind rather there were many twisty elements in it. Scientists engaged with the Asiatic Society were not solely passionate for apolitical pursuit of knowledge; in the process a moral and medical ground for condemning anything Indian was conveniently constructed and consequently India was epitomized as fundamentally different from Europe. In clear words the Asiatic Society's scientific pursuit had a particular colonial agenda of search for the Orient—'the Other' of the Occident (Said, 2001). Ophiological enterprise of the Society was very much included in this project of 'Scientific Orientalism'. Hereafter we shall trace out some of the hegemonic characters of this colonial medical endeavour—how medicine and Orientalism both became important forms of colonial knowledge system and were conveniently employed by the imperial authority for the purpose of 'command'.

INVENTING TROPICALITY AND CREATING DIFFERENCE:

In colonial India the perception of environmental theory of disease exercised a critical influence on the very character of the emerging imperial order. The British conceived of India as a disease-laden and deadly landscape. "While not perhaps quite a 'White Man's Grave'…still India…was viewed as a place where fortunes might be made quickly, but where the Englishman was not likely to enjoy a long and healthy life" (Metcalf, 1998: 171). Incidentally, during the imperial encounter deaths of British troops and civilians by 'peculiarly' lethal diseases were common happenings and hence major tension of empire and the deaths from disease were more serious to the colonial authority than deaths in battle (Curtin, 1989: 1). So it became the cardinal consideration of germinating imperial health policy to control these diseases and reduce morbidity and mortality rate. Interestingly colonial medical service, with proficiency, did it in a typical fashionable way. In order to enlist these diseases in colonial medical curriculum, imperial

medicos first desperately located these diseases, identified them thoroughly and finally categorized them as 'disease in the tropics' or 'tropical disease' (Worboys, 1993). And the then emergent discipline of 'tropical medicine' gave considerable scientific credence to the process of encountering these typical diseases adjudged by the colonizers as an adjunct of the 'warm climates' or 'torrid zone' (Worboys, 1976; Harrison, 1992; and Arnold, 1996). Therefore the notion of tropical disease and the theory of tropical medicine were absolutely an imperial 'scientific speciality', introduced to serve British military, political and trading interests, and only by slow degrees moved towards the need of 'native' inhabitants (MacLeod, 1988: 3). In this context the disease of snake-poisoning was also an inevitable consequence of this whole pathological and therapeutical process of invention of tropicality.

To understand the sickly situation, interpret Indian snakes and arrive at a medical solution, colonial ophiologists attached with the Asiatic Society constructed their own criteria of 'imaginative geography' and finally conceptualised snake-biting as a disease of 'hot climates'. In British pathogenic sense rapid progress of "the several symptoms of this disorder" occurred formidably only in tropical environment where "serpents are much more numerous, and much more dangerous than in Europe" (Boag, 1799: 103). This environmental theory of disease marked out India, with her unfamiliar animal life, as an exotic and dangerous terrain. To elucidate the internal relation between tropical climates and the destructibility of this disease colonial surgeon-naturalists proclaimed that if the victim was a tropical denizen, the cure would be difficult, because "the venom of snakes is more malignant during hot dry weather" (Williams, 1790: 256). Thus difficulties faced in India, were commonly attributed to climatic causes, compounding the prevalent idea that India was utterly different from Europe. And this climatic discourse was a fundamental element of the ideology of the company Raj (Metcalf, 1998: 171-185; and Harrison, 1999).

The ophiologists not only categorized the symptoms of poisonous snake-biting as a tropical disease of human body but also believed and propagated that it could be successfully treated by Western medical science only. Civil Surgeon of Chittagong, John Macrae proudly wrote to John Fleming, President of the Medical Board, Fort William that he was fortunate because he had adequate knowledge of scientific medicine, which only 'happily counteracted' the fatal effect of this 'disease in the human body, consequent to the bite of the serpent', which

was very rapid in its progress (Macrae, 1810: 309). From the very beginning, tropical medicine, more than healing the sick, became a symbol of 'command' enacting colonizers' mastery over the 'inhabitants of warm climates'. We find a clear image of that in the account of William Boag, one of the physicians of the Bengal Presidency. He wrote:

> I am therefore still of opinion, that the method of cure mentioned in the foregoing paper is the most rational, and the most likely to succeed in preventing death, as well as the other bad consequences which sometimes follow the bite of a serpent that is not mortal. In the use of the nitric acid bath, I should have much confidence: and this confidence arises from a greater experience of its powerful influence upon the human body in different diseases: this experience will soon be communicated to the public by my friend Mr. SCOTT, whose labours in the application of a most powerful and useful agent in medicine, and especially useful as applied to the inhabitants of warm climates, merit the greatest praise (Boag, 1799: 125-126).

So Europeans were confident that they could only master such cruel disease and this confidence was rapidly and inveterately planted in the mind of colonizers working in non-European world. Colonizers were frighteningly aware of the perils of Indian climates but simultaneously possessed themselves of a scientific credence that they could only succeed in preventing death. This 'curative confidence' penetrated with the implicit faith in the efficaciousness of Western medicine in a tropical colony (Arnold, 1989: 12). In British thinking, the applicability of Western medicine was beyond doubt, because it was culturally rational and truly experimental.

Thus climate became a potent metaphor for the idea of difference, and of separation and always remained a significant part of the colonial medical heritage as projected by the Asiatic Society. The concept of the disease of 'warm climates' aided by the notion of imperial pharmacopoeia became a great divider between the tropics and the temperate zone; it was a part of a wider ploy to condemn Indian climatic backwardness. Western medicine ultimately became a hallmark of British progressiveness. In an anticipating manner colonial medicine facilitated western penetration and domination of India and 'Ophiology of India' was a specific and critical illustration of it.

'WHITE' MEDICAL MASCULINITY:

For another reason, colonial ophiological research was more expressive. Though its derivation depended on the situational exigencies, it simultaneously demonstrated a particular imperial mentality, which may be elaborated as typification of the superior 'white' masculinity of the ruling race. Important explorations about Indian snakes were associated with some kind of romantic interest in discovering and improving oriental nature. The British narrator-scientists often coloured tropical India as a romantic arena; and while poisonous Indian snake was depicted as a cruel, silent, savage enemy, Briton was projected as the rescuer and saviour of civilization.

In the account of John Macrae (1810), from the very moment of receiving the venom into his body, until it was skilfully counteracted by the use of medicine, the dilemma of the 'medical man' manifested a war between man and nature. The snake was imagined as a sign of Indian barbarism and the British person who fought against its harmful venom, as a symbol of progress. This romantic idealization tried to demonstrate how Indian wilderness created difficulties for the civilized people and how they triumphantly demolished it and finally established law and order. The entire process, as projected, not only revealed the defeat of unscientific orient through the victory of British rationalism but also constituted the cultural superiority of 'manly Englishman' (Sinha, 1997). Thus a mostly accidental affair was converted into an auxiliary of colonial masculinity discourse. For the colonizer, it was extremely essential first to propagandize, then negotiate and finally restrain the savagery of Indian nature, because it would be worthy of their unafraid life as a potent and masculine ruling race.

In another instance, one of the earliest ophiologists and servants of the English East India Company, John Williams vividly narrated over half a dozen cases of snake-biting in between August, 1780 and September, 1788 where all the victims were native people. To him these natives were merely 'White man's burden', depended entirely upon British rational thinking and medical practice for survival in their own habitat and the 'white man' could only rescue and civilize them. As described in all these cases, the natives first applied their own "prayers and superstitious incantations" (Williams, 1790: 255) to get rid of the effect of venom, failed miserably, at last had to approach John Williams, who saved their lives with few drops of medicine. He wrote on an occasion:

on being informed of the accident, I immediately sent a servant with a bottle of the Volatile Caustic Alkali Spirit, of which he poured about a teaspoonful, mixed with water, down her (a woman of the Brahmen cast) throat, and applied some of it to the part bitten. The dose was repeated a few minutes after, when she was evidently better, and in about half an hour was perfectly recovered.

This accident happened in a small hut, where I saw the snake, which was a middle-sized Cobra de Capello. The Brahmens would not allow it to be killed. In the above case, no other means whatever were used for the recovery of the patient than are here recited (Williams, 1790: 255).

Thus excellence, expertise and inevitableness of Western medical science were, as intended by John Williams, established and after successfully preparing a reviving antidote his bragged realization, "it points out the means of obtaining the greatest self-gratification the human mind is capable of experiencing, that of the preservation of the life of a fellow-creature, and snatching him from the jaws of death" (Williams, 1790: 254). This self-appreciation was characterized on the one hand by the helplessness of 'fellow creature' before the 'jaws of death' and on the other by eloquently projecting the greatness of British protector, and victory of Western medical science. And this 'self- gratification' was not an individual cognition, rather was a part of absolute homogeneity because 'Ophiology' as a distinct discipline emerged and flourished in India along with the expansion of colonial imperialism and the colonial ophiologists as Company servants and also as contributors to the Asiatic Society, enjoyed immense power and unabated privilege, worked as a dominant group, who saw themselves as persons engaged in a 'civilizing mission'. We shall investigate further areas where the colonizers used to glorify their own role as civilizers and in doing so, perniciously coloured 'the Other' as uncivilized and savage.

CENSURING INDIGENOUS MEDICINE:

The colonial power and Western medicine were interlinked with a common goal of establishing a hegemonic authority that deliberately tried to denigrate century-old native knowledge-system and indigenous immunology by designing these as irrational and superstitious. A common indigenous medicine and *materia medica* for snake-bite, well known in India as 'bezoar' or

'snake-stone', appeared to colonial scientists as only a collection of unscientific and inaccurate beliefs. A reputed interlocutor of that time, Dr. J. Davy, claimed to have satisfactorily established by experiment that all the reputations of these snake-stones among the natives were based on imaginary conceptions and thus merely a hoax. He wrote:

> I may relate an instance in which a snake-stone gained much credit, applied to the bite of a serpent of this kind. The story was thus told me by a spectator. A native servant was bitten in the leg by a serpent. A snake charmer was immediately sent for. He came speedily, yet before he arrived, the leg and thigh were much swollen. The charmer applied his snake-stone, which was a long time continued. In about three hours, the pain, which at first was excruciating, had nearly ceased, and the swelling in about three hours more had subsided, and the man, who was travelling on foot was able to pursue his journey, which I have no doubt he would have been able to have done just as soon, if no stone had been applied (Davy, 1820: 321).

After denigrating this native antidote, he confidently emphasized that "its application would be useless, and worse than useless, as interfering with the employment of efficient means of cure" (Davy, 1820: 320). We notice a similar attitude in the venomological account of William Boag. He was seeking for "the most successful method of curing the disease which the poison produces" (Boag, 1799: 110) and among all the remedies he enquired, an indigenous medicine called 'Tanjore pill' was depicted by him as not only unsafe and inefficacious but also its application produced 'violent effect' which might occasion death and therefore "it should probably be employed in desperate cases only and where no other powerful remedy can be procured." (Boag, 1799: 112-113). Doubtlessly this 'other powerful remedy' meant only Western remedy. In other word, only in a helpless situation doctor might dose oneself with indigenous medicine.

Surprisingly, various European travellers and interlocutors touring India in the sixteenth and seventeenth centuries frequently observed and studied the 'snake-stone' and considered it as an extremely efficacious remedy. Portuguese physician and botanist Garcia da Orta in his famous account mentioned of this indigenous medicine in its local name as 'bezoar' and believed the stone to be of Persian origin, its name being derived from the Persian 'pad-zahar', or 'antidote to

poison' (Harission, 2006: 47). Similarly M. de Thevenot travelled through the Portuguese colony of Diu in 1666 and gave an account of it:

> In this town of Diu the so much famed stones of cobra are made, they are composed of the ashes of burnt roots, mingled with a kind of earth, which afterwards is made up into a paste, of which these stones are formed. They are used against the stingings of serpents and other venomous creatures, or when one is wounded with a poisonous weapon (Harission, 2006: 47).

For a pretty long time Europeans appreciated snake-stone as useful medicine that could be employed in India and at their own countries and the price Europeans paid for it was almost equal to that of gold (Harission, 2006: 53).

Prior to the formation of the hegemonic authority of modern medicine, the only dispute about this native antidote was regarding its origin, that is, whether it was formed in the head of a snake or it was a medicinal compound or an artificial fabrication. There was not a single effort to accuse the medical value of this stone as 'imaginary'. Rather according to Hugenot gem merchant Jean Baptiste Tavernier it was extremely effective when used as an antidote to snake venom (Harission, 2006: 48). But after the colonial establishment of the command of scientific medicine the entire scenario was made to change rapidly. Indigenous remedy like snake-stone was subjected to critical scrutiny. Writing in 1715, medical practitioner and fellow of Royal Society, Frederick Slare, claimed that the 'bezoar' stone had no remedial property (Harission, 2006: 53). Following this empiricism, in an additional remark on J. Davy's analytical enquiries, the Secretary of the Asiatic Society described snake-stone as a fancied antidote of the Indians:

> The notion that a gem or stone of great value and miraculous properties was formed in the head of a snake, is one of considerable antiquity and wide circulation, and both in its early introduction and subsequent revival, is manifestly of Indian origin…The gem of the classical writers, and which according to them is not a stone at all, unless it be taken from the head of a living snake, is evidently the wonderful Carbuncle of the romance writers (Davy, 1820: 324).

And with absolute trust in Western scientific thinking and practices he proudly claimed "we have the authority of FONTANA, for its being known from the experiments of those two great *Italian* naturalists...that the snake stone has no efficacy in curing the bite of viper" (Davy, 1820: 328). In

the same manner famous 'Tanjore pill' was also encountered and counteracted (Chakrabarti, 2006; Harrison, 2010: 134-137).

In this perspective, the possibilities of inter-cultural interaction and gradual assimilation or synthesis were certainly limited. Actually, "Colonialism added a new burden on modern science: it was compelled to claim a monopoly in knowledge in order to retain its claimed superiority. This monopoly is based on the premise that all other forms of acquisition or accumulation of knowledge, all other epistemologies, are worthless, antiquated, magical, and must be eliminated" (Alvares, 1996: 91). But evidences of quite a few exceptions to this dominant attitude, as appended below, would prove that the trajectory of colonial medicine was not altogether a one-way affair.

PROVISION FOR A 'RESPECTFUL DIALOGUE':

There is no paradox that, ophiological specialism was more essential for the British living in India than those living in Britain and for that potent reason it was never been an exclusively Eurocentric epistemology. It is beyond doubt that 'Ophiology of India' was indebted to metropolitan scientific epistemology and methodology for its origin, still metropolitan genealogy and intercourses had not supplied the whole story. Indeed Indian experience often modified and improved colonizers' scanty knowledge of medicine which they had borrowed from the Western medical tradition. The scientific study started to cope with aforesaid specific problem, gave a chance to the colonial surgeon-naturalists to rectify their own Western conceptions through experiments and also absorb some indigenous knowledge. David Arnold (1996: 13) rightly remarked that, "Sometimes it was the challenge of a new disease environment that caused doctor to question, innovate, or look to indigenous practice for guidance".

For instance, Dr. Theodore Cantor recognized an indigenous belief and depending on it confessed that scientific concept of the Europeans in this respect was erroneous. He wrote:

> The Snake-catchers before they feed Serpent, kept in cages, are accustomed to give them a quantity of water, which is readily swallowed. As I have witnessed this fact very often, I cannot help remarking how perfectly wrong the physiologists are, who state, that Ophidians never drink. On the contrary, these

> animals both drink and moisten their tongues, which, with the Serpent whose tongues are not situated immediately in the cavity of the mouth, become two quite different acts (Cantor, 1839: 90).

Similarly, Dr. William Mackenzie had accepted some indigenous systems of treatment with due respect and succeeded. His remark was:

> To explain why salt was offered to the person bitten, it is proper to add that an universal belief prevails amongst the native of this part of India, that salt tastes sweet to those who are under the influence of a powerful animal poison, and that when this morbid taste ceases, that the danger is abated or entirely over, and that all medicine may be safely discontinued (Mackenzie, 1820: 336).

These instances suggest how in the rudimentary period colonial medicine sought to introduce, in many cases, local cultural elements into Western medicine and opened up a creative potential for an inter-cultural assimilation and synthesis. So the triumphal march of Western medical-zoology did not indiscriminately blind all its practitioners to the merits of indigenous medical knowledge, rather there were some examples to manifest that Europe's encounter with Indian medicine was often a 'respectful dialogue', based upon a shared medical understanding.

Also, on several occasions Western medical knowledge became contradictory and thus less influential. For example, we may cite what Dr. William Boag exclaimed about Dr. Mead, when he tried to enquire in what manner the venom produces fatal effects upon the human body. Dr. Mead viewed that venom in human body used to act through the nerve, about which William Boag remarked that, "This is one of those vague conjectures which has served, at one time or an other, to obstruct the progress of every science, and which owes its reputation to a sort of readiness in explaining every thing, because it can explain nothing in an intelligible manner" (Boag, 1799: 107). In a long research paper acknowledging the findings of Italian naturalist Abbé felice Fontana, he elaborated that venom actually acts through blood. He wrote, "These fundamental truths have already given a new appearance to the theory and practice of medicine, and they now lead me to conjecture that the poison of serpents acts upon the blood, by attracting the oxygen, which it receives from the atmosphere in its passage through the lungs, and upon which its vitality depends" (Boag, 1799: 109). So there were ignorance and contradictions among British scientists even in relation to Western system of knowledge and also not all of

them altogether rejected indigenous knowledge system and immunology as 'unscientific' and 'superstitious'.

CONCLUSION: BEYOND ORIENTALISM:

In summing up our discussion, we should now turn our attention to the colonial project of 'Scientific Orientalism'. Any discussion regarding 'Orientalism', nowadays must pertain to Edward W. Said's (2001) canonical and influential work and our present analysis is situated well within this horizon. Inspired by post-structuralist, feminist and Marxist theories, Edward W. Said managed to wage a frontal attack on Orientalism as a cumulative and hegemonic imperialistic discourse. The crystallization of this discourse into a coherent set of ideals comes with the growth of the European colonial empires and undoubtedly the institutionalization of the Asiatic Society was a milestone of this historic happening. Virtually to understand and reveal the constitutive nature of Orientalist scientific scholarship invigorated by the Asiatic Society, we must not ignore the assumption of this celebrated Palestinian literary historian. In spite of that we also must admit that the relationship between the production of Orientalist knowledge and the imperialist project in India was more twisted and complex than Saidian sophistication.

Though the dynamic relationship between scientific project and Orientalism of the Asiatic Society of Bengal was enormously productive, the above evidences of 'respectful dialogue' demonstrate that 'Ophiology of India' was not a discipline through which Orientalist scholarship consistently proceeded to confirm the 'primitive', 'irrational', 'unscientific' nature of the Orient. Rather there were many twisty chinks in such narrations. In many cases, colonial ophiologists had to retreat from their own ideas—projected by them as 'symmetric', 'rational' and 'scientific'—which often misled them in a situational exigency and inevitably compelled them to compromise with Indian realm of knowledge. In that dualistic and hesitant situation, when the credibility of Western epistemology was not beyond doubt and remedial measures for Empire were not congealed exactly in terms of European perceptions, opportunities for complete cultural reproduction and dominance were far inadequate and manifestation of 'power/knowledge' (Foucault, 1980) was less assertive. Therefore complete epistemological differentiation between the Occident (self) and the Orient (the Other) was arduous and the way of defining and locating Europe's other was less potent than what Edward W. Said perceived, at

least in the early decades of colonial rule in India. However we don't mean that there was no such Orientalist creation of the Orient as the West's eternal other; rather it is important to remember that relationship between Britain and India had never been on equal terms, as the British conquered, colonized, and exploited India and Orientalism often was a rationalization of this colonial endeavour. But what we actually mean to say is that though the history of intellectual and cultural contact between West and India was convoluted, full of ambiguities and contradictions, there were many more intricacies in it which do not fully conform to the Saidian critique of Orientalism.

In this perspective another point is equally assertive. We have stated earlier that the servants of the EEIC were encountered with an alien danger in India and in quest of a practical solution to overcome this danger they took keen interest in ophiological studies. Following Michael Worboys we may cite this 'new' discipline of colonial medical-zoology as applied science, i.e. "science applied to production of systematic knowledge, the provision of material benefits, and the solution of practical problems" (Kumar, 2006: 5). In its material practice ophiology, like any other medical discipline, served to cure people and not surprisingly Indians—who were major snake-bite victims—were mostly benefited by it, whatever may be the intention of the knowledge makers. If we consider the snakological account of the Asiatic Society's periodicals as some kind of statistical account we find that majority of snake-bite victims treated were Indians. Therefore, despite its intended aggressive character we can not view 'Ophiology of India' solely as a 'tools of empire' (Headrick, 1981) or simply as an instrument of cultural enforcement and dominance. Considering it as 'colonial medicine', our suggestion is that it was a scientific speciality with ambidextrous nature.

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