

TRAVEL ACCOUNTS AND THE EIGHTEENTH CENTURY: INDIAN MEDICINE AND SURGERY THROUGH TRAVELLING GAZE

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The eighteenth century traveler-writers were mostly engaged with the new knowledge-building project of natural history, and travel narratives are filled with gentleman effort for “naturalizing”. The idea of progress, especially in eighteenth century England, was to captivate influential sections of British society. Technology, unlike today’s understanding, in this era meant detailed or systematic examination rather than tools or invention. Depending on different cultural backgrounds, gap of time period of only one or two decades, and differentials in intellectual ability of perception/observations of the same kind of things very much varied amongst travelers. Travel writings of the previous centuries departed from its trajectory. Collections of curious observations on the manners, customs, usages, different languages, government, mythology, chronology, ancient and geography, ceremonies, religions, mathematics, astronomy, medicine, physics, natural history, commerce, arts and sciences crystallized into new domination, gradually ascending into the formation of a novel kind of secular social hierarchy. It was altogether unknown in India before colonial subjugation. In India, at this early colonial moment, the British grouped indigenous medicine with literature and the arts. It is consistent with the evolution of the concept and meaning of science in Europe. Oftentimes, there was epistemological mutation of medicine in the colony.

Through the making of new kind of institutions, laws, commerce, economy, education, curricula, and social milieu European powers finally became successful to introduce its medical knowledge in India. The history of medicine in India was all set for an entirely different journey. This journey ushered in the historically new period of “hospital medicine” in India. This was yet to come up in the travel writings of the eighteenth

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century. We would find those accounts gradually unfolding in the writings of the nineteenth century travelers.

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INTRODUCTION

Francois Bernier (1625-1688, M.D. of the Faculty of Montpellier) made an insightful observation in his *Travels in Mogul Empire* of seventeenth century, “A profound and universal ignorance is the natural consequence of such a state of society as I have endeavoured to describe. Is it possible to establish in *Hindoustan* academies and colleges properly endowed? Where shall we seek for founders? or, should they be found, where are the scholars? Where are the individuals whose property is sufficient to support their children at college? or, if such individuals exist, who would venture to display so clear a proof of wealth? Lastly, if any person should be tempted to commit this great imprudence, yet where are the benefices, the employments, the offices of trust and dignity, that require ability and science and are calculated to excite the emulation and the hopes of the young student?”¹

Bernier also noted the lack of entrepreneurship in India, “few are the men who will voluntarily endure labour, and incur danger, for another person’s benefit...”² Bernier’s century may perhaps be seen to end in what Louise Pratt calls as “contact zones” – social spaces where disparate cultures meet, clash, and grapple with each other, often in highly asymmetrical relations of domination and subordination.³ It gave way to new form of ideology which created global imaginings above and beyond commerce. Following Lach (1994), since most of Asia’s fundamental tools and mathematical conceptions were familiar to Europe before 1500, the Europeans of the sixteenth century and beyond concentrated upon products rather than devices or ideas.⁴ This particular process perceptibly crystallized in the eighteenth century with the making of new colonial dominions and subjugated people. In this enterprise travelers’ accounts were of considerable importance. In the second half of the eighteenth century, many traveler-writers would dissociate themselves from such traditions as survival literature, civic description, or navigational narrative, for they were to be engaged by the new knowledge-building project of natural history.⁵ Travel narratives of all kinds began to develop leisurely

pauses filled with gentlemanly “naturalizing”. One more thing to remember, the idea of progress, especially in case of England, began to captivate influential sections of British society in the second half of the eighteenth century. It was accentuated after the successful conclusion of the Seven Years War (1756-63) against France. Its precise expression was determined by the particular assumptions made about historical change, human existence and improvement, and the nature of their interrelationships.⁶

“Historians of the eighteenth century have also begun to detail how botany – expertise in bioprospecting, plant identification, transport, and acclimatization – worked hand-in-hand with European colonial expansion.”⁷ Moreover, adherence to a theoretical medical system produced therapeutic styles and preferences which became “increasingly prominent in the course of the eighteenth century.”⁸ As for the therapeutic innovation, the well-known hallmarks of the eighteenth century, the trials of James Lind (1716-94) on the cure and prevention of scurvy (most notably with citrus fruit), and William Withering (1741-99) in his use of *digitalis* in the treatment of dropsy. The British East India Company, which had built its own connection to India, began to charter its ships with all vigor. After the 17th century, every British merchant ship of more than 500 tons bound for trans-oceanic destination had to carry at least one regular surgeon and an assistant surgeon. Originally the ship’s surgeon had also been the ship’s barber.⁹

To remember, 1735 in more than one way is a watershed in the history of European scientific attitude. One was the publication of Carl Linnaeus’s *Systema Naturae* (*The System of Nature*). In this work, the Swedish naturalist laid out a classificatory designed to categorize all plant forms on the planet, known or unknown to Europeans. The other was the launching of Europe’s first major international scientific expedition, a joint effort intended to determine one and for all the exact shape of the earth. In the second half of the eighteenth century, whether or not an expedition was primarily scientific, or the traveler a scientist, natural history played a part in it.¹⁰ Voltaire, in his letter to Cideville 16 April 1735, wrote,

“Everybody has begun to play at being the geometer and the physicist. People meddle with reasoning. Sentiment, imagination, and graces have been banished.... It is not that I am annoyed that Philosophy is being cultivated, but I do not wish it to be a tyrant excluding all others.”¹¹

Voltaire's letter perhaps epitomizes the onset of an era of scientific travel and interior exploration that in turn suggests shifts in Europe's conception of itself and its global relations.

Before going deeper into travel accounts we should better keep in mind the cautionary note from Adas, "Only the best educated of the missionaries and such exceptionally well-educated travelers as Francois Bernier had the background, extended overseas-residence, and linguistics skills necessary to explore African and Asian scientific learning seriously."¹² Technology, unlike today's understanding, in this era meant detailed or systematic examination rather than tools or invention.¹³

Arnold observes that the term "science" needs to be understood not only in terms of the contemporary Western passion for scientific inquiry (which spread well beyond the scientific community as such) but also as part of an evolving strategy within colonial epistemology, as an attempt to use direct European observation to supplement or even displace the written texts (mainly in Sanskrit and Persian) and the high-caste intermediaries (particularly Brahmin pundits) "that had informed and characterized the early Orientalist project."¹⁴

TRAVELLERS' ACCOUNTS

Quentin Craufurd (1743-1819) noted, "The study of medicine is followed in Hindoustan, by persons who devote themselves entirely to that profession...They consult the pulse with much attention, and, perhaps aided by the great sensibility of their touch, they discern with exactness the least variation in its motion." Though he admired Indian pulse examination aversion to surgical procedures is also contained in his observation, "In all bilious cases they prescribe copious purging, but are at all times averse to bleeding, or vomiting. In feverish complaints, they chiefly trust for a cure to extreme abstinence, and large draughts of *cangi*, or light gruel made of rice."¹⁵ Regarding venereal diseases in India, he commented, "it is fair, therefore to conclude, that the Hindoos were afflicted with it long before we became acquainted with them."¹⁶ He believed, "the Hindus possess a considerable knowledge of chemistry."¹⁷

He believed that the Islamic invasions had resulted in general decline and stagnation of science in the subcontinent. He also suggested that the

historic isolation of India and the secretiveness of Brahmin castes had discouraged critical and creative thinking and hence advances in scientific knowledge.¹⁸

Pierre Sonnerat (1748-1814) was the nephew of the French botanist Pierre Poivre. He was a French naturalist and explorer. He also spoke out against the prevalent racism in the European circles of his time. Adas (1989) finds that no writer in the late eighteenth century “surveyed the state of Indian technology in greater detail than the French traveler and naturalist Pierre Sonnerat...Sonnerat’s causal explanation for India’s technological stagnation are expressive of the central intellectual preoccupation of his era.”¹⁹ Again, he was dismissive and derisive about Indian medical knowledge. One of the reasons behind Sonnerat’s derisive remarks, I assume, may be that the “eighteenth century would prove to be the age of surgeon in Europe...Physicians became interested in surgery, and it began to be taught at the universities.”²⁰ As we all know, France was at the pinnacle of this development. Sonnerat was a French nationalist. He shared his national superiority. He writes, “The knowledge of Indians in medicine, is confined to the preparation and use of some simples.”²¹ He comments, “All diseases are difficult to cure in India, not only from the method of treatment...Credulous to excess, the Indian imagines he cannot be cured without the assistance of medicine.”²² He finds that the Indian pulse examination is of the same manner as the Chinese. To him, “Whatever belongs to surgery is unknown to the Indians; like the Egyptians they have never opened a corps, to study the nature of the human body, and to discover the cure of disorders.”²³

It is apparent from this small quote that the Indians are completely bereft of anatomical dissection and the knowledge of pathological anatomy. These two fields were the benchmark of European excellence of surgery and, consequently, of medicine. Bernier ruefully observed the absence of proper academia in modern sense. Sonnerat’s observations foreground it. In his observation, “they place all their confidence in an empiric who often has been a washerman, weaver, or blacksmith, three months before; and who, from want of employ, turns physician...The Indians are almost all physicians. From their infancy they are instructed in the knowledge of some simples and different receipts handed down from father to son.” He once again points out the Indian’s dire deficit in medical knowledge, “They administer few remedies

inwardly...They are ignorant of the use of glysters; and the invincible dread they have of blood is always an obstacle to their being bled. If an European surgeon was to bleed them, the fear attending the operation would produce an effect quite different from what was expected.”²⁴ He deals with a quartan ague which was, to his analysis, due to “the great quantity of nitre which the earth of this country contains, and which makes the air very cold in certain seasons.” His own chemical analysis leads him to conclude, “I am persuaded that volatile alkali may be given with success.” The knowledge of chemistry is fortified by dissection and pathological findings, “These obstructions extend from the pit of the stomach to the left hypochondria, and sometimes as hard as a stone.”²⁵ As a consequence of their speculative and faulty knowledge, Sonnerat observes, “The Indian physician could not save a single person.”²⁶

Regarding smallpox, he comments, “The Indians do not make use of inoculation; neither do they distinguish the confluent small pox from the refluent; but treat them both in the same manner.”²⁷ Interestingly, despite his sense of superiority in European medicine, and, especially surgery, his medical theory anchors on Hippocrateo-Galenichumoral theory. To him, Indian erroneous practice to treat smallpox “turns the *humours back*, checks the perspiration, forms a collection of matter, considerable scars, fluxes and coughs, which often lead to consumption.”²⁸ In his modern eye, “Child-birth, which is performed with so much ease in India, is attended with dangerous consequences...the sick person dies on the eighth or ninth day.”²⁹ Only a few of the Indian treatments find some favor. “For the hemorhoidal flux they use with success lard mixed with rice, which they call *Ponnmei*.”³⁰ Again, “In lieu of our *eau de luce*, they use the milk of *Cali*, and to recover a person from fainting, they rub the corner of the eye...who most commonly loses his sight.”³¹ In his final remarks, “This is nearly all the knowledge, *or rather the prejudices*, of the Indians in physic, and the general remedies, or poisons, they use.”³²

At this juncture, we should remember what Roy Porter has to say, “Early-modern times brought Harvey’s and other brilliant breakthroughs in anatomy and physiology, but achievements proved more impressive on paper than in bedside practice...and mortality rate soared.”³³ European travelers’ coming to India had the sense of superiority of anatomical and physiological knowledge, but in the field of therapeutics they became unsettled with the

crude reality of tropical climate. Indian medico-botanical knowledge was of prime importance in those days of empirical therapeutics.

The eighteenth-century amateur naturalists were requested to write diaries, collect biological (both botanical and zoological) for academy's (Royal Swedish Academy of Science, established in 1739) *naturalia cabinet*. Linnaeus's medico-botanical tradition flourished in England in the eighteenth century through the agency of *Linnean Society* of London, *Royal Societies* of Edinburgh and London, and *Society of Arts*, London.³⁴ The plants and drugs of Asia had awakened the interest of European naturalists, merchants, and travelers long before opening the sea route to India.³⁵

In contradistinction to Sonnerat, another voyager of his own country, **Claude-Francois Lambert** (1705-68) wrote about the Indian physicians, "They cure the fevers which begin with shiverings, by making the patient take three large pills of ginger, cumin and black pepper, before the paroxysm."³⁶ He noted, "The physicians are more reserved than those of Europe in the use of sulfur, which they correct with butter... They with all success employ against all fevers, henbane corrected in cows urine, and orpiment corrected in lemon juice. A physician is not admitted to prescribe to a patient, till he finds out his disorder, and the humour which predominates in him, which he easily knows by feeling the pulse."³⁷

From these observations one would find some differences between an Indian and a European physician. While Indian practice is conservative about the use of sulfur they excel in feeling pulse – a deficit presumed to be a characteristic of European practice. Regarding Indian surgical procedures, he noted, "An obstruction of spleen, which has no other specific but the practice of the Indian devotees. They make a small incision over the spleen, and then insert a long needle between the fifth and skin. From this incision, by sucking thro' a horn pipe, they obtain a certain pingunous matter which resembles pus."³⁸

About a century later, William Twining, first assistant surgeon, General Hospital, Calcutta, noted this practice in Bengal. "Long needles are said to be used by native practitioners, to puncture the spleen: and if they ever penetrated to the diseased organ, and a cure succeeded, it is very probable that the successful event might be ascribable to the peritoneal inflammation excited at the diseased part. I have seen them use needles, but so short, that

I am quite certain the surface of the spleen was never touched in any of the operations which I witnessed ... it is probable that the use of needles for such purpose, is founded on practical acquaintance of the benefits to be derived from such operation when more effectually done.”³⁹ As distinct from Lambert, Twining, being a surgeon by training, provided physiological explanation of the procedure, “And it is possible that the benefit which is derived from it, may depend on a degree of local inflammatory action, being followed by an effusion of lymph, which on absorption effects a permanent decrease of the spleen.”⁴⁰ He added, “Two men now in Hospital, Pereira and Guthrie, have each had the spleen repeatedly and deeply punctured : they are recovering, and I think the spleen in each has diminished more rapidly since the operation, than for 3 or 4 weeks previously.”⁴¹

Lambert cited another unique practice of the Indian physician, “Most of their physicians have a custom of throwing a drop of oil into the patient’s urine. If it spreads, they say that this is a mark that he is too hot internally, if on the contrary it remains whole, it is a sign that he is defective in heat.”⁴² Though, he mentions, “The common people have very simple remedies.”⁴³ We should note that the way surgical procedures were applied to relieve the patient of splenic abscesses and make a drain was of no lesser competence and feat. Interestingly, only Lambert has specifically noted it in his travel writing.

He antedates Sonnerat. Lambert’s somewhat respectful attitude for Indian medical knowledge is entirely absent in Sonnerat’s account. Regarding Indian treatment, Lambert, unlike Sonnerat, noted, “They cure panaris, or whitlow, *very easily*, by means of toasted leaves of a species of lily which grows at Bengal, applying them twice a day to the part affected, and at the end of thirty days the pus is formed.”⁴⁴ “They treat erysipelas of the head with leeches, and in order make them fasten, irritate them, by handling them with their fingers dipt in mouldy bran.”⁴⁵ In fevers, he did not fail to mention the practice of venesection in Bengal, “they order the patient to smell to the whole flowers of white chamomile, two hours before the paroxysm, gently rubbing the forehead, temples, the parts of the arms wherein venesection is performed, the wrists, the palms and backs of the hands, the navel, the loins, the hams, the feet and the region of the heart, with a bag full of the beans of the country bruised; for they do not use those of Europe.”⁴⁶

John Henry Grose (fl. 1750-83), a civil servant of the East India Company, noted, “For bloody fluxes, the Brahmins suggest a very simple, but as they pretend a most infallible remedy, consisting in a strict abstinence from every thing but rice stewed dry...that is excellent against that acrimony which preys on the entrails, and breeds the disorder.”⁴⁷ Grose found, “Chronical disorders, such as the gout, rheumatism, stone, consumption, &c. are rarely known in those parts, and none of the distempers, more particular to them, are so frequent or general as to form a just objection to the venturing into that climate.”⁴⁸ He had his respect for local and indigenous remedies. “Myrobolans they generally use in purging, and have the highest opinion of their effects, either as a preventive, or a medicine.”⁴⁹ In his two-volume work, we find frequent mentions of hospitals, which were then in regular operation for European soldiers.

Regarding traditional Indian hospitals, not European ones, **Carsten Niebuhr** (1733-1815), a captain of engineers in the service of the King of Denmark, made a profound observation, “One thing singular in Surat is, that here is no hospital for human beings, but an extensive establishment of this nature for sick or maimed animals...The charitable Indians keep a physician of purpose for these animals.”⁵⁰ He noticed another fact of importance, “The son may quit his native cast, but may choose among the employments which are practiced by that cast.”⁵¹

Kapil Raj provides citations from **L’Empereur**, “The fakirs who have the best remedies come every winter to bathe in the Ganges. By giving something and speaking to them in [Hindustani], directly without interpreters, they let you into their secrets. It was a fakir who thus taught me great remedy for epilepsy.”⁵²

In 1771, **Olof Torren** (detail not available), Chaplain of the Gothic Lion East Indiaman, observed, “fevers frequently attack *Europeans*. The *French* at first lost a great many men by this disorder, and were at last (according to their own account) obliged to have recourse to the physicians of this country, who reject the use of bleeding and of tamarinds in agues. Tamarinds are not half so much in use in *East India* as in *Europe*.”⁵³ He also found friction, rubbing of the body, used among the ancients very rational from modern physiological point of view, “as an expedient of great use to

promote the circulation of blood.”⁵⁴ In the same book, Mr. John Frederick, President of the Royal Academy of Sciences, gave his opinion, “I believe, it is an undoubted truth, that the advantage or disadvantage of travel into foreign countries depends principally on the inclination and abilities of the travelers.”⁵⁵ He added, “we can boast of those travellers, whose sole view has been to improve their knowledge by fresh experience.” Such was the importance of travelers’ accounts, as is evident from this address. Moreover, he reminded “the public thankfully acknowledges the courage you (the three authors of the book referred to) have exerted amidst so many difficulties for the enlargement of knowledge; and reckons you among the small number of travellers, who have opened a field, (which before had never been attended to) and in a country too whose natural history has lain till this time in greatest obscurity.”⁵⁶

In 1755, **Edward Ives** (died 1786, obscure origin), a naval surgeon and traveler, wrote about India, “The country, besides large timber-trees of different kinds, abounds also with a variety of shrubs, and succulent plants...A good beginning for a collection of curious shells might be made on the shores of this island; they are now much more scarce all over *India*, than they were formerly.”⁵⁷ It is interesting to note that even more than 250 years ago Indian bio-diversity began to dwindle to an extent. Ives specifically noted, “The skill of their physical people is very mean...In fevers ...they used pepper...he told us they had, and brought us a large book, made up of a number of leaves of the *Palmita* tree...man was divided into two or three hundred thousand parts; ten thousand of which were made up of veins; ten thousand of nerves; seventeen thousand of blood; a certain number of bones, choler, lymph, &c. &c. &c. And all this was laid down without form or order, either of history, disease or treatment.”⁵⁸ He found “this to be all the written account they have of physic” and “which they never study, but like the other casts, the son of a doctor is a doctor also, and so he will continue to be from generation to generation.”⁵⁹

Though dismissive about Indian physic (medicine), Ives had to admit the skill of the Indian barber, “His manner of operation is still more extraordinary, for he beats up a lather on your head, not in the bason, which is no bigger than a tea-cup; and shaves you earlier than ever I experienced from any of the profession in England.”⁶⁰

He refers to hospitalization of European soldiers whenever necessary⁶¹. Sometimes the number of patients hospitalized was more than 600.⁶² In the treatment fluxes, there were different modes of treatment, not a universal one. “In all diseases at *Bengal*, the lancet is cautiously to be used.”⁶³ In his hospital, there was a distinction made between the bilious and putrid flux. Reminding one of drug trials in the eighteenth century as mentioned earlier, fluxes were treated by administering first a vomit, then rhubarb, and lastly ipecacuanha in small doses. Mercury was found to be the only medicine “yet known which gives a patient any chance for his life, since without his undergoing a salivation, an abscess of the liver is almost sure to take place, and which in the end proves fatal.”⁶⁴ Finally, “Upon the whole, though the Indian mechanics are by no means deficient in the handicrafts arts, yet their talents seem to be only of a second rate kind...The skill of their physical people is very mean.”⁶⁵

Edward Terry (detail not available), Chaplain to the Right Hon. Sir Thomas Row, had made a curious observation, “Here are those which pretend unto much skill in physic, though (for aught I could ever there observe) the people make but little use of them, they fearing more *Medicum quam morbum*; and therefore do believe the physician to be the more dangerous disease.”⁶⁶ Though, it should be noted, this was originally published in 1655.

Fra Paolino da San Bartolomeo (1748-1806, in Italian: Paulinus of St. Batholomew) was well versed in languages (he spoke German, Latin, Greek, Hebrew, Hungarian, Italian, Portuguese, English, Sanskrit, and some dialects of India). He taught Asian languages for seven years at the College of *Propaganda Fide* in Rome and, in 1776, he was sent in Malabar in India, where among other things, he devoted himself to the study of Sanskrit language. He was one of the first to detect the similarity between Sanskrit and Indo-European languages. While writing his travel account during 1776-1789 he was a member of the Academy of Velitri, and formerly Professor of the Oriental Languages in the Propaganda of Rome. Early in his writing he concluded that “the Indians are by nature well qualified for study; and that Indian dialect facilitates, in an eminent degree, there acquiring the European languages.”⁶⁷ Any recognition of this sort was totally absent from other accounts. One of the reasons might be he was a polymath, not only confined to natural sciences and his particular flair of mind made him more

sensitive to the study of disparate cognitive fields of human beings. In his observation, “The intelligent reader will readily observe that the Indian have made much more progress in botany than in mineralogy; because they prepare the greater of their medicine from vegetables.”⁶⁸ He went on, “The Indians never take an emetic or purgative without causing the physician to prescribe something for them by which too violent effects of the medicine may be checked. They abhor phlebotomy, and employ only cupping; but this even very seldom.”⁶⁹ He was attentive to incommensurability of therapeutics in two different climates – “The method and prescriptions of Van Swieten and Tissot are therefore almost impracticable in those climates.”⁷⁰

Unhesitatingly, he lauded Indian medical writings, “India alone contains more medical writings, perhaps than are to be found in all the rest of the world.”⁷¹ In his opinion, “As printing has never been introduced here, all hands are employed in copying manuscripts, and particularly such as relate to propagation of human life, viz. medical and botanical.... There are even boys who possess an extensive knowledge of botany; and this is surprising, as, from their earliest years, they are made acquainted with the nature of plants, and their different properties.”⁷²

He was earnest in his remarks – “Did the religion of the Indians allow them to dissect and study anatomy, they would certainly attain to great proficiency in medicine; but as these are strictly forbidden, it may be readily conceived that the above sciences can make little progress.”⁷³ He emphasized, “I have, however, seen instances of Malabar physicians curing patients who have been totally given up by the Europeans. The Malabar physicians, in general, are superior to most Europeans in the knowledge of simples.”⁷⁴ He mentions of a local herbal medicine *Veppa*, which was in excellent service in tertian fevers. Tertian fever was a nightmare for the Europeans. To his notice, “The nettle *Cuditova*, as the Brahmans say, is an excellent remedy to purify and thin the blood, to expel the gout, leprosy, and malignant fevers...*Ulatunwera*, the root of the *Ulam*, is an excellent remedy for the jaundice. It cleanses the urinary passage when obstructed by slimy accumulations and cures the *Gonorrhoeaebenigna*.”⁷⁵

Unlike Craufurd’s description, he categorically mentioned, “The venereal disease is very little known in the interior parts of India. As the Indians are remarkably attentive to cleanliness, and as both male and female

live with the greatest temperance, use food easy of digestion, are in continual perspiration, wash the parts of sex three times a-day, and adhere to other strict regulation rendered necessary by the nature of the climate, this detestable disease has not been able to make much progress in the inland provinces.”⁷⁶ He seems to be very logical in his argument. This type of logical argumentation is absent in people like Craufurd.

Bartolomeo mentioned of 34 diseases prevalent in Malabar region. He categorized and discovered about 40 species of different plants and herbs of the region. He told his readers, “It cost me immense labour to collect this numerous catalogue of simples, and to add their Malabar, Latin, and Portuguese names; but it will perhaps enable those fond of botany to form some ideas of the knowledge of the Indians in that branch of science.”⁷⁷

Thomas Pennant (1726-98) is well known for his account on Indian rhinoplasty.

“I must by no means omit one branch of European surgery, that has of late been practised with great success by a *Poonah* artist, who has lately revived the *Taliacotian* art, differing only in the material, for he does not apply to the *brawny parts of porter’s*, &c. &c. to restore the mutilated patient. I am not mailer of the process, but am told it is by cutting the skin and muscles of the forehead on three fides, and drawing it over the deficient part. If the bridge of the nose is injured, I perfume that must be supplied by some ingenious invention.”⁷⁸

There is another controversial, version of Pennant’s account,

“This art is practised by the *Koomas*, a caste of *Hindoos*. Some religious ceremonies are first performed. Betel and arrack are put into the patient’s hands, and he is then laid on his back, his arms stretched along his sides, on the ground, and he is ordered, on no pretence whatever, to use his arms during the operation; and they impress him with this idea, that it cannot be successful unless he complies strictly with this injunction.”⁷⁹

Whatever be the controversy, Pennant provided significant details of Cowasjee, who underwent rhinopalsty, “It can sneeze smartly, distinguish good from bad smells, bear the most provoking lug, or being well blown without danger of falling into the handkerchief. It will last the life of the wearer...”⁸⁰ He also gave description of Indian plants and how they are utilized by the “English dispensary” and Carl Linnaeus. He made mention of *Amarkośa*, which “contained a vocabulary of about 200 vegetables.”⁸¹

J. Z. Holwell (1711-98), F. R. S, opined, “The Eastern Practitioners, *with great modesty*, arraign the European practice of Phlebotomy ad Cathartics in any stage of the disease (smallpox).”⁸² But his final appeal was, “If the foregoing Essay on the Eastern mode of treating the Small Pox, throws any new and beneficial lights upon this cruel and destructive disease, or leads to support and confirm the present successful and happy method of Inoculation...into *regular and universal practice, the cool regimen and free admission of Air*...I shall, in either case, think the small time and trouble bestowed in putting these facts together most amply recommended.”⁸³

It is to note that in the second half of the eighteenth century Holwell, being a surgeon of the pre-Jennerian era, could not deny the efficacy of the Indian method of inoculation. He appealed to the members of the Royal College of Physicians, London, to take this fact into account for their judicious appraisal. Contrarily, Sonnerat declared that the Indians “do not make use of inoculation.” How to reconcile these two observations at complete variance? Was the latter out of racial superiority, or blind conviction of one’s own superior knowledge of anatomy and surgery? We do not have any clear-cut answer to such intricacies.

CONCLUSION

The systematizing of nature, foreign natural world and disease patterns is a European project of a new kind – “planetary consciousness among Europeans.”⁸⁴ This process of systematization was to assert even more powerfully the authority of print, as will be evident from Bartolomeo’s accounts. Travel writings of the previous centuries departed from its trajectory. Collections of curious observations on the manners, customs, usages, different languages, government, mythology, chronology, ancient and geography, ceremonies, religions, mathematics, astronomy, medicine, physics, natural history, commerce, arts and sciences crystallized into new domination, gradually ascending into the formation of a novel kind of secular social hierarchy. It was altogether unknown in India before colonial subjugation.

In India, at this early colonial moment, the British grouped indigenous medicine with literature and the arts “considering it to be a part of local tradition distinct from universal science.”⁸⁵ It is consistent with the evolution of the concept and meaning of science in Europe. Science came into English

in 14th century. It became more generally used, often interchangeably with art. “But from middle of 17th century certain change became evident. In particular there was the distinction from *art*.”⁸⁶To put it in other words, quantification of natural events replaced almost all qualitative aspects of human world. In the world of medicine, it can be seen in the use of new diagnostic technologies. Attempting to distil disease into medicine-by-numbers, Dr. Brown envisaged a thermometer calibrated upon a single scale, rising from zero to 80 degrees. “The device of a single axis objectified illness into something quantifiable, and pointed to a therapeutics dependent upon dosage size.”⁸⁷ Ironically, along with this fact, pathological anatomy and the practice of dissection did not open door to cures – hardly any eighteenth-century scientific advance helped heal the sick directly, cure of the sick remained marginal.

With all these characteristics colonial medicine in India had to grapple with so many dissimilar therapeutic practices and, consequently, their standardization. It is echoed in Pringle’s words, “Another inconvenience...common to all antimonials, is the difficulty of making it to standard.”⁸⁸In his experimental spirit of the eighteenth century, Dr. Wade had to admit epistemological mutation of medicine in the colony. While discussing about fevers, John Wade commented, “Doctor Pasy, at Madras, was probably the first who ventured to confide in his own observation, and to deviate from the destructive practice of the times.”⁸⁹ He compared his practices in Bengal with those “nosological writers” of England and affirmed, “a comparison of a large collection of cases, which have occurred in Bengal, and on board a ship...will prove to the satisfaction of every person”, if his judgment “is unbiased by prejudices acquired at the university, or in the shop, or by the respect which is due in a certain degree to great names.”⁹⁰For the first time in the history of medicine in India individual case records of the patients began to be kept and preserved. In Indian medical tradition, patients had no individual entity, they were socially embedded. We never find individual patient’s history excepting a few cases in Buddhist medicine. He noted, “Blisters do not possess, amongst the generality of practitioners in Bengal, that eminence which they have had in European practice.”⁹¹ Charles Curtis felt the compulsion to go beyond nosological theories of Cullen.⁹² He specifically mentioned, “That European nosology and definition, would in

India, prove but uncertain or fallacious guides...”.⁹³ Importantly, European medical theory seems to lose to an extent its universal character through epistemological mutation in India.

Through the making of new kind of institutions, laws, commerce, economy, education, curricula, and social milieu European powers finally became successful to introduce its medical knowledge in India. A medical department was established in Bengal as far back as 1764, for rendering medical services to the troops and servants of the Company. At that time, it consisted of 4 head surgeons, 8 assistant surgeons, and 28 surgeon’s mates. In 1785, medical departments were set up in Bengal, Madras, and Bombay presidencies with 234 surgeons. The medical departments involved both military and civil medical services. On 29 May 1786, a Hospital Board was formed to administer European hospitals comprising of the Surgeon General and Physician General, who were in the staff of the Commander-in-Chief of the Royal Indian Army. In 1796, hospital boards were renamed as medical boards to look after the affairs of the civil part of the medical departments. On 24 June 1796, the Hospital Board was converted into the Medical Board with two members.

The history of medicine in India was all set for an entirely different journey. This journey ushered in the historically new period of “hospital medicine” in India.⁹⁴ This was yet to come up in the travel writings of the eighteenth century. We would find those accounts gradually unfolding in the writings of the nineteenth century travelers.

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