



Hortus Malabaricus: Indian Heritage And Its Significance

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Abstract:

Hortus Malabaricus, a 17th century lexicon, authored by Van Rhee de is the first collaborative venture between scholars of India and western world. It helped to conserve biodiversity and bioculture of India and paved way to trade solving health problems of mankind. There is hardly any compartment which is not tackled by the workers involved in development of this monumental lexicon. Apart from scientific perspective, it limelighted the Indian language viz., Malayalam for the first time in print form. Indian ancient knowledge is thus forwarded for the next generations of research workers in different domains of knowledge. It is a pioneer work focusing indigenous knowledge of Malabarians in the welfare of mankind. It obviously indicated early beginning of science of plants and medicine even before western world. Van Rhee de through his monumental work 'Horti Indici Malabarici' (1878-1693) showed extraordinary sensitivity to cultural knowledge of the Indians in ancient time. Its translation into English by Professor Manilal filliped other research workers to think over it on different grounds shedding more light in other disciplines. The present author, therefore, reiterate the importance of ancient Indian lexicons being vehicles of 'Indian Knowledge Systems' and urge for their investigation on scientific ground for welfare of mankind.

Keywords: Hortus Malabaricus, Indian heritage, Bioculture.

Introduction:

The oldest printed monumental book (17th century AD) on Indian plants from Malabar region can be featured as: It is compilation of the well advanced ethnobotanical and ethnoiatrical knowledge of the natives of Malabar region. Van Rhee de, Dutch Governor of Cochin, perceived knowledge with mutual cooperation and thought it more advantageous. He was assisted by experts like physicians, scientists, artists, plant collectors, interpreters of Malabarar and Europe. A special mention may be made in this context of Mathew, John Caesarius, Itty Acchuden, Ranga Bhat, Vinayaka Pandit, Appu Bhat, Emmanuel Carneiro and H. de Donep. The physicians gave information in Malayalam and Kokani languages. The said information was then translated into Portuguese and Latin by interpreters appointed by Van Rhee de and the Dutch East India Company. According to Van Rhee de (1984) these Brahmans and gentle philosophers often honour antiquity and the first inventors of their sciences with the most pious reverence and judge by them their own views and experiences. And, regarding medicine and botany, the knowledge of these sciences is preserved in verses, the first line of which begins with the proper name of the plant, whose species, properties, forms, parts, location, season, curative virtues, use and then described accurately. Hortus Malabaricus is thus a milestone in the field of plant science. Cart Linnaeus (Father of Modern Botany) made mention many times about this book establishing about 250 new "species" from it. Likewise, Adanson (1763), Jussieu (1789), Dennstedt (1818), Hassakarl (1867) and others also used Hortus Malabaricus (Manilal, 1984). He trusted the accuracy of the said work and included 258 Malayalam names while coining binomial directly or after Latinising. Because of

descriptions provided by Van Rhee in absence of herbacrium records, have made their correct identifications difficult in several cases.

The Ezhavas identified sophisticated medical and botanical knowledge. They assisted the growth of a public understanding of it as the cultural property of the Ezhava community. They were distinguished Ayurvedic physicians, native of Kadakkarapally, a costal village. Itty Acchuden, who belonged to Ezhavas community, was the major contributor of ethnomedicinal information. Hortus Malabaricus comprises 12 volumes of about 500 pages each, with 794 copper plate engravings. It is thought to be the earliest comprehensive printed work. The portrait of Van Rhee printed in Hortus Malabaricus was drawn by the famous painter of Amsterdam Peter Stevens Van Gunst.

Methodology:

Van Rhee's 'Hortus Malabaricus' was written in Latin (17th Century AD.) but translated into English by Professor K.S. Manilal (2003). Later on, this English edition opened a new vista to study the biodiversity, traditional knowledge, bioculture and linguistics by several research workers of different domains. The present author is also attracted to the contents of this lexicon. All these secondary literary sources have been consulted to borrow information to limelight concisely the importance, significance and impacts of this comprehensive herculean task. The literary sources are as those cited in the text pinpointing opinions and expert comments on it, apart from my personal opinion or impression while going through these sources.

Systematic Enumeration

1. This oldest comprehensive printed book on the natural plant wealth deals with the medicinal properties of the flora in the Indian states of Kerala and Goa.
2. It contains descriptions and illustrations of 742 plants originally written in Latin and compiled over a period of nearly 30 years and published from Amsterdam during 1678-1693.
3. It is a record of traditional practices of ancient India, about medicinal properties of the flora, the diseases, composition and dosages of medicine.
4. It threw open a vast treasure house of knowledge to scientists, medical practitioners and academics for further study and practice.
5. It also provides much insight into the cultural, social, political, historical and linguistic conditions prevalent at the time of the India.
6. It contains details of unexplored Anukta Dravyas which was not mentioned in Samhitas and classical texts of Ayurveda (Aswathy and Aravind, 2022).
7. Hortus Malabaricus hallmarks an important era in the history of Botany and Taxonomy.
8. Carl Linnaeus included about 350 plants in his 'Species Plantarum' (1753) used Malayalam (Vernacular) plant names in his "Binomial Nomenclature" system (Aswathy and Arvind, 2022). Linnaeus chose Hortus Malabaricus as his principal reference book. Even he named a genus of flowering plant Rheedea in tribute to Van Rhee.
9. The information explained in Hortus Malabaricus is directly or indirectly gained from the family book of Collatt Vaidyan's family (Ashwathy and Arvind, 2022).
10. Aswathy and Arvind (2022) provided a table with vernacular (Malayalam) plant names, equivalent botanical name, locality (place seen), part used and medicinal uses. These author pointed out a need to include these practices to be scientifically validated and to introduce into Ayurveda.
11. English languages became a '*lingua franca*' in the multicultural region. Prof. Manilal's faithful translation (2023) generated a lot of interest upon its publication in 2008. Thus during 20th century his work became widely acceptable to local readers and world over. The task was mind-boggling. Each of the 742 plants mentioned in Hortus Malabaricus had to be tracked down to the areas they were originally collected from over 300 years also and then identified anew because of new classification has changed significantly. Prof. Manilal thus shed light on the society, culture, science and language of its time. He made the correct identity of the plants.
12. Van Rhee's focus was on botanical education, his work has also come to be a valuable record for historians of language. Material for this book was first written in Portuguese in Cochin, then translated in Dutch and Latin.
13. Apart from comprehensive nature of Hortus Malabaricus, it is coupled with the skill of the illustrations and the combination of Latin, Malayalam, Konkani and Arabic-Malayalam names. This ensured that it became the source of early modern botanists interested in Asian Botany.

14. Its pre-eminent status is made aware by the lectotype for eleven plants (Majumdar and Guha Bakshi, 1979).
15. It aided in clarifying taxonomic status of (i) *Cycas circinalis* and *Cycas rumphill* and (ii) *Datura metel* (Majumdar and Guha Bakshi, 1979).
16. It opened up possibilities to work with botanists, ecologists, historical researchers, cultural geographers, taxonomists and curators. It has allowed encounters with rare plants in darkened herbaria and light-filled South Indian forests and swamps.
17. Its English translation by Professor Manilal (2003) from Latin and his commentary on the current status of each plant in the region of Malabar offered rich sources for enquiry.
18. Rheede named 19 species of ferns in Malabar in his *Hortus Malabaricus*. Later on, Datta (1985) established their current botanical names through close examination of Rheede's plates and literature and current nomenclatural studies (cf. Datta, 1985).
19. Van Rheede, although came to India as an administrator to promote trade, he was fascinated by the rich flora of Malabar Coast and the multiple uses of these plants, particularly in medicine. He was not basically a botanist, but was a keen observer of nature. He planned the work in such a magnificent way that he included over hundreds of men from all walk of relevant knowledge to gather information from well known physicians (Itty Acchuden), Sanskrit scholars and Vaidyans (Ranga Bhat, Appu Bhat, Vinayak Pandit), Professor of Medicine and Botany, amateur botanists (Arnold Seyn, Theodore Jansson, Paul Hermann, Johannes Munnicks, Joannes Commelinus), technicians, illustrators and engravers, apart from company officers, chergymen (D. John Caesarius, Carmelite Mathaeus). Van Rheede was also profusely assisted by the king of Cochin and the ruling Zamorin of Calicut.
20. Van Rheede's own work is pre-Linnean and before the world of Botany started adopting the classification system of plants developed by Carl Linnaeus.
21. Van Rheede's work represented: (i) identification, (ii) the falling back on the prevalent knowledge on it and (iii) very importantly verifying it through the diverse knowledge systems present around him at that time. He thus showed an extraordinary sensitivity to cultural knowledge of the time and not seeing it through to blurred double vision of knowledge as power (cf. Lawrence, 2012). Van Rheede obviously faced the grave challenges to complete this 'Magnus Opus'.
22. Exploration into the current availability of drugs ingrained in *Hortus Malabaricus* of Van Rheede has been made possible by its English translation by Professor Manilal (2003), apart from revelation of biodiversity of Malabar region in India which is being diminished because of modern waves of developments, trade and globalization. The translated said lexicon is an authentic resource for patenting and open new Vistas (Jij *et al.*, 2020). It contains 700 Indian medicinal plants (Manilal, 2012).
23. The epic treatise viz., *Hortus Malabaricus* is highly relevant in present time. This is made possible by Professor Manilal's English translation (2003), which a truly herculean task at knowledge gaining about rich flora of Malabar (India) (Jiji *et al.*, 2020).
24. This monumental work certainly useful and bridges gap between traditional knowledge and modern scientific trends for welfare of mankind. Moreover, this pioneer work shed light for the first time on evolution journey of Malayalam language.
25. Discovery of the land of Malabar was the outcome of quest of European for its plant wealth. Traders were attracted by richness of produce such as spices, food crops, timber and naturally dyed cotton textiles. Beyond the economic riches, the land of Malabar served the people as a healer. Indigenous communities had used plants for medicinal purposes. This accumulated medico-botanical learnings had been passed down among traditional healers and codified into texts and other systems of knowledge (cf. Preface By Van Rheede to Vol.3, *Hortus Malabaricus*).
26. The said treatise weaved in multiple strands into its legacy from indigenous knowledge and its attribution to the networks of science and commerce in an expanding world of trade, political power and colonialism, technology, and shifts in perspective around the representation of nature in the visual arts. Above all, it is a story of the land, and of a curiosity to know and recognize the gifts of nature (cf. Shetty, 2024). Previously, European scholars knew India only as a land of legend and fantasy (Manilal, 2012).
27. Van Rheede's communication and collaboration with indigenous communities and native physicians is of particular significance when in a time European scientific systems were believed rigorously.
28. *Hortus Malabaricus* projected 'real knowledge' and even recognized or validate its authors which are generally ignored, rejected and forgotten for ever.

29. Preservation of indigenous knowledge and immortalization of the botanical and medicinal knowledge of indigenous community of Malabar was thus possible.
30. Its botanical illustration are still thought valuable for authentic identity of plants.
31. The most significant consequence of this lexicon is a definite shift in emphasis from miracle curves to medical science. Medical knowledge was in its rudimentary stage in Europe. Before the beginning of the Christian Era (500 years ago), medical discipline was a well developed science in Malabar (Manilal, 2012).
32. Van Rheedee, who had no training in Botany, became fascinated by the flora of Malabar, compiled and published a unique 12-volume work *Hortus Malabaricus* between 1678 and 1693. Professor Manilal devoted to translate it into English for 35 years. His stupendous task opened a vast treasure-house to scientists, medical practitioners and historians (Mohan Ram, 2005).
33. Van Rheedee's basic interest was to record details of native and traditional medicinal plants of South India, the work ultimately turned up the first authentic regional floristic survey of Asia. It also became a historical example of exchange and influences between and within the West and East in the fields of art, sculpture and engineering. It has been projected as classical work on bio-cultural heritage of India. It is important in sciences like botany, medicine, conservation and ecosystem studies. It mirrored habitat conservation plant classification and economic value of plants (Sabu *et al.*, 2013).
34. The *Hortus Malabaricus* and role by Itty Acchuden in its creation is a significant cultural symbol of the sophistication of Ezhava's medico-botanical knowledge (to which Acchuden belongs) (Shetty, 2024). It is notable that his ancestral knowledge influenced Carl Linnaeus while developing taxonomic work. *Hortus Malabaricus* became a symbol of the network of Dutch trade and science that connected Asia (India) and Europe (Shetty, *loc.cit.*).
35. All these importance and impacts of the *Hortus Malabaricus* are clearly reiterated in recent publication by Professor Manilal (2012).
36. The *Hortus Malabaricus* is examined by Patil (2020 a,b) to reveal bioinvasion in India and thought it an authentic source of literature indicative international communication particularly in scientific domain.

Results And Discussion:

Prior to the medieval period of history of the world, India appeared to the western people encapsulated in the veil of mysticism. European scholars knew India only as a land of legends and fantasy. They generally followed traders whose exclusive purpose was to obtain the material wealth. The European powers sent explorers worldwide inclusive of India. We know the first European explorer who reached India was Vasco-da-Gama, a Portuguese sailor (*cf.* Manilal, 2012). Later on, the European colonized in India and probed different aspects of knowledge. They gained an insight into the affairs of India and were eventually acknowledged the Indian society as intellectually highly advanced, refined and diversified. Van Rheedee's approach is a testimony to this fact. His efforts truly crystalised in his '*Horti Indici Malabarici*' (1678-1693), a monumental, comprehensive and a herculean task, to which several scholars of different compartments of knowledge have been attracted, nay they studied it enthusiastically. The present author, therefore, decided to project opinions and expert comments by different scholars of this lexicon highlighting its importance, significance and impacts worldwide.

There exists some sort of trends that pinpoint the cultural level of civilization. In the routine life, the society largely depended on plant products which were in abundance in vicinity. Plant-world was/is the principal source of raw material for most of the necessities of mankind. Man-plant relationships are either concrete or abstract. People of Malabar region (Kerala: India) can not be exception to this fact of human-life. The elements of biodiversity during the long course of human life are ingrained in some lexicons. As far India is concerned, we are well acknowledge that plant species find places in lexicons such as Vedas, Epics, Puranas, Nighantus, and certain other genre of ancient Indian Sanskrit scriptures. This is also the case of South India wherein some lexicons have appeared in past. *Hortus Malabaricus* is one such lexicon which sought attention of several scholars of various disciplines of knowledge from India and abroad. Malabar region is quite rich floristically. In search of spices, food-sources, medicine, etc., people outside from India visited Malabar region particularly. These visitors eventually turned up to be administrators in this region and also carried our business of gaining plant products for their home countries. *Hortus Malabaricus* has been studied intensively after its English edition. Research workers in this realm of enquiry pointed out clearly importance, significance and impacts on the contemporary societies. While going through the data presented in such research work, the present author could notice their opinions and remarks worth to collate and to bring in sharp focus of the readers.

Hortus Malabaricus is one such intensively investigated lexicon that have bearings of different fields like economy, health, sociology, politics, arts, invasion (bioinvasion), etc. The research carried out after its English translation by Professor Manilal opened up new vistas. Later on, research workers paid attention on different fields of enquiry like Ayurvedic medicine, linguistics, bioinvasion, bioculture, socio-culture, studies on spices, specific group of plants e.g. palms, gymnosperms, ferns, apart from angiosperms. All these researches amply clarified the status of Indian civilization. India was ahead intellectually quite before the Christian era. The science of plants and medicine were more advanced than the western world. This is well indicated, nay affirmed by the research carried out on 'Hortus Malabaricus'. Van Rheedee extended his efforts to benefit his people. While doing so, he also projected sensitively rich culture of the Indians and their in-depth knowledge and skills essential for human sustenance. Moreover, Professor Manilal's task proved to be thought provoking. Otherwise, this rich treasure of Indian heritage would have remained hidden in dark. Apart from his vast routine taxonomic and biodiversity investigations, he followed untrodden path of research involving botanical science, medicine, linguistic, socio-culture and socio-economy. Conclusively, it can be reiterated that the ancient Indian lexicons or treatises in Sanskrit or other Indian languages should be investigated on scientific ground which help reveal history of science of Indian soil.

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