

# IIAS Outreach

## Hortus Malabaricus in the year 2012

Introduced and compiled by Sandra Dehue, IIAS editor

**I**n the context of the IIAS outreach programme, intended to promote greater public understanding of Asia, a lecture on *Hortus Malabaricus* [The Garden of Malabar] was organised on 27 June 2012, in the Hortus botanicus Leiden [botanical gardens]. Three distinguished speakers discussed the present-day value of this stunning and insightful 12-volume work, printed in Amsterdam between 1678-1693, containing approximately 700 illustrations of medicinal plants and the explanations of their workings.

THE BOOK WAS THE PRODUCT of a remarkable collaboration between the former governor of Malabar, Hendrik van Rheede, and a large number of Ayurvedic doctors, botanists, translators and artisans from India and the Netherlands. This unique testimony of India's immaterial cultural heritage remains significant today as an authentic and important source of traditional Indian knowledge of indigenous plants and their medicinal workings. 325 years after its first edition, *Hortus Malabaricus* has become topical once again, on account of its recent translation into English and Malayalam, by Prof. K.S. Manilal.

The former director of the Dutch National Herbarium, Prof. Pieter Baas, started the afternoon with an inspiring bio-historical lecture about the context and history of *Hortus Malabaricus*. Renée Ridgway, a visual artist based in Amsterdam, took over to speak about her interest in the subject on the basis of two exhibitions in the Netherlands and India, and also introduced a new online community platform ([hortusmalabaricus.net](http://hortusmalabaricus.net)). Lastly, Dr. Maarten Bode, medical anthropologist at the University of Amsterdam and the Institute for Ayurveda and Integrative Medicine in Bangalore, India, spoke about the practice,

commercialisation, professionalisation and scientific approach of traditional Indian medicine, such as Ayurveda.

The afternoon was held at the Hortus botanicus Leiden. The Hortus works closely with the National Herbarium of the Netherlands (NHN), which houses original Latin and Dutch editions of, respectively, *Hortus Malabaricus* and *De Malabaarse Kruidhof*. The NHN recently merged with the Naturalis Biodiversity Center in Leiden ([www.naturalis.nl/en](http://www.naturalis.nl/en)); with 5.5 million dried plant specimens, Naturalis BC houses one of the largest herbarium collections in the world.

Illustrations above and below: Coconuts – Prints from the *Hortus Malabaricus*. The entire publication, including illustrations, can be accessed through [www.botanicus.org](http://www.botanicus.org).





## A bio-historical lecture

Professor Pieter Baas

GIVING THANKS TO HANS HENIGER<sup>1</sup> for his excellent thesis as the source of information on the hero of the story, Hendrik Adriaan van Rheede, Pieter Baas shared with us the exciting history of *Hortus Malabaricus*.

During the 16th century, the quality of the serious study of plants in Europe was given a huge impetus by Lucca Ghini's invention of the 'herbarium method': the pressing of plants between two sheets of paper so that they could be preserved in dry form. This signified a huge breakthrough, as it enabled easy comparison of plants found in different locations. It also led to the creation of 'herbaria' –collections, in book form, of dried plants and drawings –some of the earliest of which found their way into the collections of the National Herbarium of the Netherlands.

### The VOC and botanical inventory

In 1602, the Dutch East India Company (VOC) was established in Amsterdam, and was the world's first joint-stock limited liability company and commercial multinational. Carolus Clusius, renowned botanist and prefect of the Leiden Hortus botanicus, immediately recognised this as an important opportunity to expand the plant collection of the Hortus and of the existing knowledge of the plant world. Through his influential contacts he was able to persuade the central administration of the VOC, the Lords XVII, to send surgeons and pharmacists on its ships to Southeast Asia, to collect "laid between pieces of paper, twigs with their leaves and flowers". With an enormous shopping list of plants he wanted to be collected, along with records of their usages by the local population, Clusius factually dictated the botanical research agenda of the VOC.

The VOC also had a direct interest, namely the health of its employees in the East. The medicines that were sent from Amsterdam, mostly consisting of exotic and expensive products from Arabia, were highly susceptible to mould, and moreover, ineffective against the tropical diseases encountered in Asia. In 1671, VOC chief physician Clever, having learned from his colleague Padbrugge about the successful treatment of tropical diseases with indigenous medicinal plants in Ceylon, urged the VOC to give more attention to indigenous plants for the treatment of its own sick employees. In 1672, the German

VOC physician Paul Hermann put together an enormous herbarium of plants from Ceylon. Hermann would later also advise Van Rheede on the compilation of *Hortus Malabaricus*.

### Hendrik Adriaan van Rheede

In 1656, at age twenty, Hendrik Adriaan Van Rheede joined the VOC and assisted Admiral Rijcklof van Goens in his campaigns against the Portuguese, mostly in Ceylon. In 1670, Van Rheede was appointed Governor of Malabar on India's west coast. Here, he became fascinated by the enormous plant biodiversity, by what people knew about the plants and how they used them. Against the wishes of his patrons in Ceylon, Van Rheede set up a laboratory in Cochin for the extraction of plants and the running of tests. Then he met the 'Discalced Carmelite', Mattheus of St. Joseph, who had already produced a large collection of drawings and watercolours of medicinal plants. Together they agreed to compile an inventory of the most important plants of Malabar.

When, in 1677, the High Council of the VOC declared Malabar independent from Ceylon, Rijcklof van Goens became a jealous rival. Faced with constant opposition, Van Rheede finally resigned and returned to Amsterdam where he continued to work on the *Hortus Malabaricus*. The first volume was printed in 1678, in Amsterdam, and Van Goens was furious; surely the VOC realised that, as demonstrated by Hermann, the best medicines came from Ceylon! The Lords XVII, however, were extremely pleased, and with their support and the help from botanists from Amsterdam and Utrecht, the final volume was completed in 1693.

Without doubt, Van Rheede was the driving force behind *Hortus Malabaricus*, but the creation of the book was the result of true teamwork. He was assisted by an advisory board of Brahmins, his own staff and soldiers, a board of local physicians, his assistant Itthy Achuden (who came from a family of Ayurvedic doctors), local coconut tree climbers, the already mentioned Carmelite, two translators, and in Holland by professional botanists from Amsterdam and Utrecht, and various artists and Latin translators. The result was a 12-volume treatise with detailed copper plate engravings and descriptions of 690 plant species, named in four languages (Latin, Malayalam, Arabic and Kolkani). It was recently established that 689 of these 690 species are still found in the contemporary flora of Malabar, and that they are accurately described in the book (one turned out to be a fantasy plant, probably based on a drawing of mixed flowers, fruits and leaves).



Above: Henricus Adriaanus Van Rheede: Hendrik Adriaan van Rheede tot Drakenstein (1636-1691).

Inset: Manilal's English translation of *Hortus Malabaricus*.

### Translation into English and Malayalam

325 years later, and the work has finally become available in English and Malayalam, the language spoken by over 30 million people in the state of Kerala, thanks to 30 years of arduous work by Prof. K.S. Manilal from Calicut University. Manilal saw the huge importance of *Hortus Malabaricus* as an authentic source of traditional Indian knowledge, of which all other sources had been lost to time. As a well-deserved tribute to his scholarship, on 1 May 2012, Queen Beatrix of the Netherlands presented Manilal with the highest Dutch civilian award, 'Officer of the Order of Orange Nassau'.

### Notes

1 Heniger, J. 1986. *Hendrik Adriaan van Reede tot Drakenstein (1636-1691) and Hortus Malabaricus. A contribution to the history of Dutch colonial botany.*

## Flower Power

Renée Ridgway

IN MY WORK AS A VISUAL ARTIST I use the VOC and WIC (Dutch East and West India Companies) as a conceptual paradigm in which to map and address specific traces of colonial encounters still visible today.

I arrived in Fort Cochin on the Malabar coast, in 2007, to investigate the remnants of Dutch colonial history, but also for my own wellbeing; to obtain a cure and to investigate more about herbal plants. The curative properties of these plants were first introduced to me in Amsterdam by my Ayurvedic doctor from Kerala, Thomas Punnen. While residing at Kashi Art Gallery in Mattancherry I met with owner, Anoop Scaria, and it was he who first told me about *Hortus Malabaricus*.

### Hortus Malabaricus

This extraordinary book, *Hortus Malabaricus*, is the earliest comprehensive work on the flora of Malabar, illustrating around 740 indigenous plants that explain their medicinal properties, with captions in 4 languages (Latin, Malayalam, Arabic, Kolkani). The former governor of Dutch Malabar, Hendrik van Rheede, collaborated with local physicians, botanists, translators, illustrators, engravers and clergymen to produce the publication. Yet, unlike many 17th century documents, the local contributors of this knowledge – the vaidyas Itthy Achudan, RangaBhat, AppuBhat, Vinayaka Pandit – do not remain unnamed, but instead have contributed sworn and signed statements of their collaboration.

Upon returning to the Netherlands I went to visit the Herbarium in Leiden, which housed an original Latin version of *Hortus Malabaricus*. I became enchanted by its spectacular, detailed renderings of Malabar plants made from copper engravings based on original watercolours. Flowers, fruits, petals, seeds and even roots were

magnificently detailed. Besides that, what makes this 17th century compendium so special is that it is perhaps one of the first documents archiving East-West collaboration,<sup>1</sup> along with its manifold functions: an illustrated botanical garden, taxonomy of named plants, a medicinal bible, a translator's dictionary, or to some, such as myself, an object d'art.

### The Wanted Land: investigating motive and meaning

I decided to explore Hendrik van Rheede's motivation that drove him to produce such a book. Together with documentary filmmaker Rick van Amersfoort I interviewed experts and local people about their opinions, anecdotes and documents. The more I filmed the more conflicting stories surfaced about the content of the book. Whose knowledge was it? Were the medicinal workings still valid in 2012? Were the botanical drawings accurate? What would be the contemporary use, or value, of such a 17th century book of spices?

The outcome of these questions were the exhibitions 'The Unwanted Land', a group show at Museum Beelden aan Zee in the Netherlands (22 October 2011-14 February 2012) and my solo exhibition 'The Wanted Land' (15-22 February 2012) at David Hall, in Fort Cochin, India – the exact location where historians believe *Hortus Malabaricus* was originally produced. The exhibition consisted of 3 videos, each addressing different aspects of *Hortus Malabaricus*.

The video *The Wanted Land* examines the VOC's taking, undertakings and un-doings that still form a part of Fort Cochin's contemporary landscape. It gathers family genealogies, storytelling, and exchange of information as a re-viewing of history that favors oral traditions, participation and *vox populi* perspectives over the official written narrative of historians, social scientists, anthropologists and sociologists. The multi-channel video installation *Commodore Odatha a.k.a. Hendrik van Reede tot Drakenstein* raises questions about the legacy of *Hortus Malabaricus* in 2012: what is the contemporary value of the knowledge contained in this book, how and why was it produced, and what were the incentives for this nobleman?

The third video *A study into (un)becoming Dutch part I* exposes various aspects of Dutch bureaucracy faced by my Ayurvedic doctor and his decision to return to the country of origin. *Part II* addresses the treatment of my migration trauma, the cure being obtained through Ayurveda massage, which uses many of the herbs and plants from *Hortus Malabaricus*. Also on display were approximately 150 indigenous plants contributed by the local community, which are also found within *Hortus Malabaricus*. A copy of the original Latin edition and the recent (2008) Malayalam version were available for visitors to peruse the beautiful engravings and to view the first printing of the Malayalam language.



Above: website homepage.

### HortusMalabaricus.net

All research and interviews not only culminated in the two exhibitions, but also led to the creation of the online community platform 'hortusmalabaricus.net'. This interactive website explores the creation of *Hortus Malabaricus* and extends its historical (oral/archival), artistic, medicinal, botanical, linguistic and political importance. It attempts to collate all information about

*Hortus Malabaricus*, enabling diverse perspectives, visions, histories, personal research, etc., to be shared in one virtual space.

Project participants, and anyone else who would like to share their knowledge, are invited to upload personal texts, archives, images, videos and remarks to the site and comment on the texts and contributions of others.

### Notes

1 Manilal K.S., D.H. Nicolson, & C.R. Suresh. 1988. *An Interpretation of Van Rheede's Hortus Malabaricus*. Konigstein: Koeltz Scientific Books



IIAS Outreach *continued*

# Ayurveda in contemporary India<sup>1</sup>

Dr. Maarten Bode

IN THE THIRD LECTURE OF THE DAY, Maarten Bode discussed ayurveda's contemporary face. He began with the remark that middleclass urban Indians use ayurveda as a back-up when modern (bio)medicine fails to provide a solution to their ailments. For 30-40% of Indians, who live on one Euro per day, however, ayurveda is often the first option when one falls ill. Research suggests that the cultivation and use of just ten medical plants can reduce the health costs of this section of Indian society by 60%.<sup>2</sup> This is significant because disease is the second largest cause of debt among India's financially poor.

According to Bode, contemporary ayurveda is shaped by a large ayurvedic manufacturing industry, the struggle for scientific respectability, and a diverse range of clinical practices. Even though ayurveda originally provided people with a regimen for the perfection of body, psyche and soul, in modern times the emphasis is on ayurvedic medicines. And where the ayurvedic industry puts forth medical curative claims for its products, learned ayurvedic practitioners favour food and behavioural regimens to medication. According to them, food is medicine and medicine is food; medicine is no use without food and lifestyle prescriptions, and medicine is not needed when people adhere to the prescribed course of therapy.



**Health products**  
To show the contemporary relevance of the *Hortus Malbaricus*, Bode focussed on *amla* or *amalaki* (*Emblia officinalis*, *Phylantiss emblica*). In part I of the *Hortus Malbaricus* this Indian gooseberry is portrayed and described on pp. 69-70. The berry is also the main ingredient of *chyawanprash*, India's best-selling ayurvedic health product. In 2002 the

sales were estimated at \$70 million, almost one tenth of the total sales of ayurvedic health and beauty products at that time. Dabur India Ltd. is its largest producer and holds 60% of the market share of *chyawanprash*. Dabur has popularised the formula's indications of use and converted the tonic into a daily necessity as an important source of vitamin C and as an 'immunity booster' for fighting 'the stress and strain of modern city life'. Health products like *chyawanprash* promise to make users effectively modern, e.g., successful in India's competitive job market and as a spouse and parent. Another example of such a product is the liver booster Livotrit from the Mumbai based manufacturer Zandu – like Dabur one of the largest ayurvedic manufacturers. These modern *rasayanas* ('promotive treatments'; as one of the ayurvedic eight sub disciplines, increasing the self-healing potential of the human body is an important objective of ayurveda) are marketed as products that fight the toxins of modernisation such as stress, a westernised lifestyle marked by the consumption of modern medicines and alcohol, and environmental degradation.

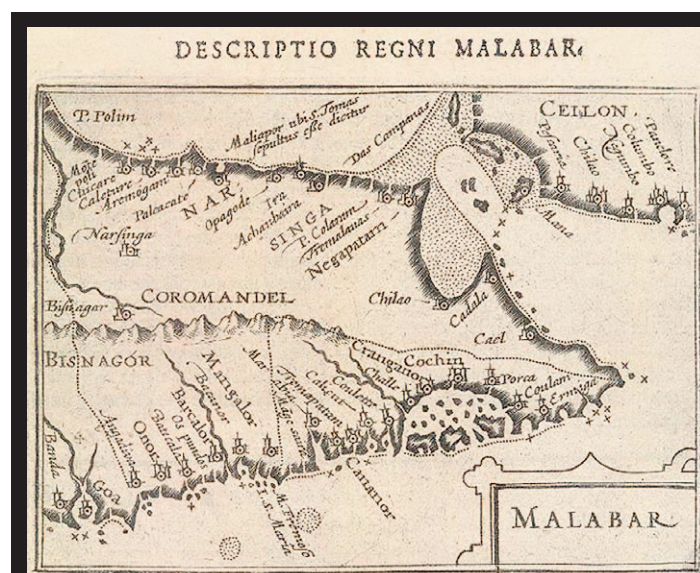
**Pharmaceuticalisation and scientisation**

Nowadays there is a focus on Evidence Based Medicine (EBM). Bode feels that, in general, we must conclude that there is not much modern pharmacological proof for the efficacy of ayurvedic medicines and treatments. On the other hand there is also no research that shows that ayurvedic treatments do not work and most western biomedical medicines and treatments are still not evidence-based either. There are three reasons for this lack of scientific proof: heavy underinvestment in research on efficacy, the lack of organised scepticism in the form of an ayurvedic research community, and the absence of treatment and research protocols that do justice to ayurvedic logic. Modern research models do not accommodate ayurveda's therapeutic aims, such as building strong bodily tissues, cleaning channels, taking away blockages, 'cooking' food and expelling 'poison' (*ama*). Modern pharmacology does provide some evidence, though meagre, that supports the medical worth of *amalaki*, *chyawanprash*'s main ingredient. *Chyawanprash* and *amalaki* have both been in use in India for centuries and their biological and physiological effects have been empirically tested by many patients.

**Practitioners**

There are practitioners belonging to an ayurvedic oral tradition and those who are very scholarly and base their treatments upon a corpus of Sanskrit medical texts. There are those who practise at the margins of legitimacy and those who hold a college or university degree. At the moment India has approximately 600,000 college and university educated ayurvedic practitioners. Most of them, roughly 70%, use their ayurvedic degree as a backdoor into biomedical practice. A second large group of ayurvedic graduates are in government service – approximately 120,000 practitioners. The third category of ayurvedic practitioners consists of about 60,000 graduates; even though they sell ayurvedic medicines to their patients, they do not accompany these with strict regimens regulating food and lifestyle. Their patients usually expect their ayurvedic medicines to do the same job as biomedical pharmaceuticals, but without the harmful side-effects ascribed to the latter. Only a small majority of ayurvedic degree holders – probably no more than 10,000 – practise in an authentic way. These authentic ayurvedic practitioners have been trained in colleges and universities, but have importantly also taken an apprenticeship with a practitioner (often) belonging to a prestigious family line of traditional healers.<sup>3</sup>

In addition to those holding a degree, there are approximately one million part-time ayurvedic practitioners, including half a million Traditional Birth Attendants (TBAs), who, besides delivering babies, mainly treat the health problems of women and children. Then there are hundred-thousands of herbal healers who treat a range of common ailments and chronic conditions. There are also many specialists who treat ailments of the eyes, ears, skin, as well as muscular and nervous disorders. Others attend to emergencies such as snakebites and other cases of poisoning. Some manage broken bones and deformities of the legs, ankles and feet. And there are those knowledgeable housewives, who practise folk medicine for the benefit of family members and neighbours. They are often the first line of defence in the treatment of common and chronic ailments.



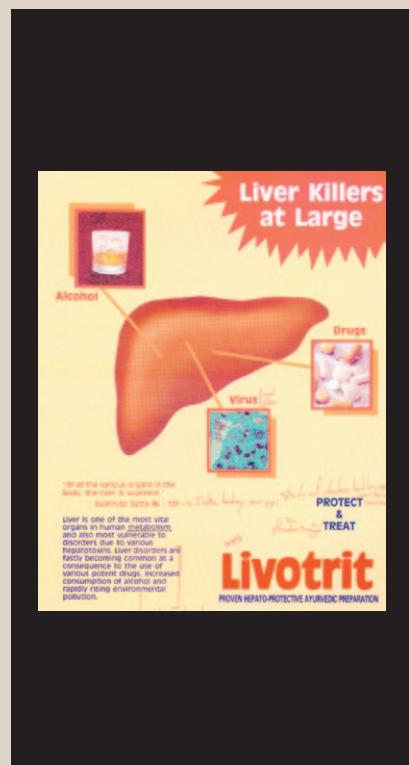
## Malabar

Renee Ridgway

DURING THE 17TH CENTURY, the Dutch captured many Portuguese-held command posts along the eastern (Coromandel) and western (Malabar) coasts of India, including Fort Cochin where they set up their own trading post within the territory that became known as Dutch Malabar, extending along the southwestern coast of modern day Kerala.

Above: 1602 map by Petrus Bertius showing south India with Malabar region in the far south-east (delineated by dotted line).

This is still one of the most bio-diverse regions in the world, with a tropical climate that supports an extensive variety of spice, medicinal herbs and other valuable plants. It was this bio-diversity that made the area so desirable to traders since ancient times. In particular the Dutch attempted to impose a monopoly on the black pepper from the region, still known today as 'Malabar Gold'. Although 'spices' lured European merchants to the Malabar, in these so-called colonies they encountered unfamiliar diseases and sicknesses all the while remarking in their travel notes how healthy and thriving the local population lived and prospered. Thus the impetus for well-being and survival in a strange environment inspired their determination to procure knowledge of medicinal plants.



A recent initiative by the Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy (AYUSH) and the Indira Gandhi National Open University (IGNOU) promotes a unique programme for assessing and accrediting the knowledge and skills of these folk practitioners. This accreditation project also offers clinical training. It is expected that training and accreditation will eventually boost the skills, the prestige and the morale of local healers. Further professionalisation is much needed to sift the wheat from the chaff.

Above left: Bone setting clinic in South India (folk healers).

Left: Advert for an ayurvedic liver tonic: 'taking away the toxins of modernity'.

Near left: Ayurvedic degree holder (BAMS) in his clinic.

**Notes**

- 1 The full article on which this lecture was based, can be downloaded from the IIAS website: [www.iias.nl/event/hortus-malbaricus-anno-2012](http://www.iias.nl/event/hortus-malbaricus-anno-2012)
- 2 Bodeker, Gerry & Gemma Burford (eds.). 2007. *Traditional, Complementary and Alternative Medicine: Policy and Public Health Perspectives*. London: Imperial College Press.
- 3 Bode, Maarten. 2012. 'Ayurveda in the 21st Century: Logic, Practice, and Ethics', in Leena Abraham & V. Sujatha (eds) *Medical Pluralism in Contemporary India*, New Delhi: Orient Blackswan, pp. 59-76.

