



Local, Material, Interdependent: Rumphius' *Amboinsch Kruid-boek* as Matter of Ecocriticism

Esther Helena Arens, University of Cologne

Abstract: The Ambonese Herbal by Rumphius, produced in the late seventeenth century, has been analysed mostly within the history of science. Yet the interdependency of locality, local and localised material, as well as Rumphius' practices of researching and writing represented in the text, make it matter of ecocriticism as well. This paper analyses the relation between the ecological and the social in the *Kruid-boek* as a Dutch colonial text in the time of bio-prospecting by concentrating on the materiality of plants and landscape. It becomes clear how the production of the Herbal depended on the colonial regime, for example in the affirmation of social order through material practices. At the same time, craftsmanship and communication were attached to specific places on the islands and might not be commodified. Furthermore, plant matter transcended boundaries between the animate and inanimate and the construction of cultured and wild spaces.

Keywords: Ambonese Herbal, botany, ecocriticism, materiality, Rumphius; *Amboinsch Kruid-boek*, plantkunde, ecocriticism, materialiteit, Rumphius

Introduction: Material and Matter

The *Amboinsch Kruid-boek* (Ambonese Herbal)¹ has been archived as written text and as printed matter, a physical object composed of paper, its subject the natural history of the Moluccas in the late seventeenth century. The author G.E. Rumphius described, in Dutch, the botanical substances of which the island landscape was composed, and these colonial descriptions eventually fed into eighteenth-century academic discussions. Translated into the taxonomic order introduced by C. Linnaeus, the Herbal's botanical names have been extracted for scientific purposes and decontextualised in the form of lists.² In the course of this process, the interdependence of locality and materiality, of method and text has been muted.³ If the specific textual representation of the islands is considered a subject of today's ecocriticism, what does it tell about the ecology of the Moluccas?

Rumphius was initially a soldier for the *Vereenigde Oost-Indische Compagnie* (VOC, Dutch East India Company), before his promotion to merchant in 1657 allowed him to busy himself with natural history as well. In the 1660s he started a family with a local woman named Susanna who had a mixed Asian-European background.⁴ He was a researcher, a writer and illustrator before he lost his eyesight in 1670, and a handler and storyteller afterwards, until his death in 1702.⁵ As a historical figure in botany, he can be regarded as an agent between plants and books in his lifetime, and the books in turn as agents between the Ambonese ecology of the late seventeenth century and today's readers. This ecology is a political one in the sense that it 'revolve[s] around societies' relationships with the non-human environment'.⁶ In his preface, Rumphius defined the island of Ambon as the production site of the *Kruid-boek*. As well as his informants and illustrators, he was constantly interacting with the landscape, interactions that shaped the content of Books X and XI especially: 'In order to describe the wild Plants we will maintain somewhat the same order one would find if one went straight across the land of Amboina, from one shore to the other. For example, when we first set foot outside the house, we will be met by grass first, growing around the dwellings of people [...]'.⁷ Rumphius repeatedly included another form of local interaction between humans and plants in his

¹ *The Ambonese Herbal. Georgius Everhardus Rumphius*, translated, annotated and with an introduction by E.M. Beekman (New Haven and London: Yale University Press, 2011). Dutch original: G.E. Rumphius, *Het Amboinsche Kruid-boek*. (5 vls. Amsterdam e.a.: François Changuion e.a., 1741ff.).

² Cf. J.K. Hasskarl, 'Neuer Schlüssel zu Rumph's Herbarium amboinense', in *Abhandlungen d. Nat. Gesellsch. zu Halle*, IX, 2 (1866); and E.D. Merrill, *An Interpretation of Rumphius' Herbarium Amboinense* (Manila: Bureau of Printing, 1917).

³ Cf. on colonial science and linguistic imperialism, see Londa Schiebinger, *Plants and Empire. Colonial Bioprospecting in the Atlantic World* (Cambridge, MA: Harvard UP, 2004).

⁴ Cf. E.M. Beekman, 'Introduction', in *The Ambonese Herbal. Georgius Everhardus Rumphius*, translated, annotated and with an introduction by E.M. Beekman (New Haven and London: Yale University Press, 2011), pp. 1–169 (p. 63f.).

⁵ Cf. Beekman, pp. 59 and 67.

⁶ Gavin Bridge, James McCarthy and Tom Perreault, 'Editors' Introduction', in *The Routledge Handbook of Political Ecology*, ed. by Gavin Bridge, James McCarthy and Tom Perreault (London: Routledge, 2015), pp. 3–18 (p. 3).

⁷ *Herbal*, Book X, chapter I, The Round Cyperus; vol. 5, p. 3. Here and in the following footnotes I reference the general book/chapter first, because those are the same in the Dutch original, followed by the specific location in the English translation.

account, which he called the Malay Grammar: '[...] for if they want to write a Request wherein they desire forgiveness for some trespasses, something we must do with many letters and compliments, they can do so by simply sending a single little twig of this grass, since its folded and flattened leaflets, represent the folded hands of someone begging for forgiveness'.⁸ These quotations are just two reflections on stories originating in materials, or materials encapsulating stories and history, scattered throughout the texts of the Ambonese Herbal. They point to the interdependency of locality, local or localised material, but also Rumphius' practices of research and writing. These practices are of course connected to early modern European concepts in botany, pharmacy and medicine, and to contemporaneous discussions 'centred around issues of universality and localisation'.⁹ When focussing on local interactions of materials and methods, however, it is necessary to go beyond the source categories.

An early, basic definition of ecocriticism referred to it as 'the study of the relationship between literature and the physical environment'.¹⁰ As nature writing, the Ambonese Herbal obviously fits into that definition. Secondly, it meets some of the criteria for 'environmental relations in literature' (literarische Umweltbeziehungen) that Benjamin Bühler has distilled from several decades of theorising ecocriticism, as it contains interaction between humans and environment, social aspects of environmental references, and contrasting juxtapositions of different conceptualisations of nature.¹¹ Thirdly, it can be subject of postcolonial criticism, which, according to Gesa Mackenthun, starts with a non-dichotomous perspective, focuses on the connections between the ecological and the social, and includes aesthetic or literary discourses in its analysis.¹² Although the concept has been developed in American Studies in particular, it is still relatively new to the field of Dutch literature – here Isabel Hoving has contributed to conceptualisation,¹³ whilst Lucie Sedláčková has shown how the concept could be applied to contemporary novels¹⁴ – but also in the field of literature in Bahasa Indonesia – Saifur Rohman has presented a case study drawing on the recurring 'story of a big flood' in

⁸ *Herbal*, Book X, chapter 7; vol. 5, p. 21.

⁹ Andrew Wear, 'The Early Modern Debate about Foreign Drugs: Localism versus Universalism in Medicine', *The Lancet*, 354, 1999, 149–51 (p. 149). Cf. also the collection by Susan Francia and Anne Stobart (eds), *Critical Approaches to the History of Western Medicine. From the Classical Antiquity to the Early Modern Period* (London: Bloomsbury, 2014).

¹⁰ Cheryll Glotfelty, 'Introduction. Literary Studies in an Age of Environmental Crisis', in *The Ecocriticism Reader. Landmarks in Literary Ecology*, ed. by Cheryll Glotfelty and Harold Fromm (Athens, GA/London: University of Georgia Press, 1996), pp. xv–xxxvii (p. xviii).

¹¹ Benjamin Bühler, *Ecocriticism. Grundlagen – Theorien – Interpretationen* (Stuttgart: J.B. Metzler Verlag, 2016), p. 30.

¹² Gesa Mackenthun, 'Postkolonialer Ecocriticism', in *Ecocriticism. Eine Einführung*, ed. by Gabriele Dürbeck and Urte Stobbe (Köln/Weimar/Wien: Böhlau, 2015), pp. 81–93 (p. 91–93).

¹³ Isabel Hoving, "Earthly Things". Ecocriticism, Globalisation and the Material Turn', *Frame. Tijdschrift voor Literatuurwetenschap*, 26 (2013), 71–85.

¹⁴ Lucie Sedláčková, 'Ecologische thematiek in hedendaagse fictie. Uitdagingen van milieufilosofie, ecokritiek en animal studies voor der Nederlandstalige literatuur', *Werkwinkel*, 10 (2015), 99–114.

contemporary fiction.¹⁵ Moreover, it has only now entered the field of the history of knowledge and early modern botanical texts.¹⁶

The Malay Grammar mentioned above points not only to the difference between early modern and contemporary texts, but also between the disciplines of literature and botany. Isabel Kranz has characterised these as follows:

In der heutigen botanischen Forschung sind Erzählungen, anders als in den frühen Texten der Disziplin seltener anzutreffen; allerdings sind sie unerlässlich in populären Überblicksdarstellungen des Faches, die gerne die in den Namen verdichtete Wissenschaftsgeschichte narrativ wiedergeben. Sowohl Literatur als auch Botanik stoßen sich immer wieder daran, der in ihrer Geschichte eingekapselten Vielfalt an Geschichten nie vollständig habhaft werden zu können.¹⁷

If ecocriticism can be understood as un-disciplining analysis, then it seems possible to handle some of the stories contained in Rumphius' *Ambonese Herbal* as sources for colonial history by concentrating on the material of plants. For Serenella Iovino and Serpil Oppermann, who developed the field of material ecocriticism, the interaction between a material form such as a landscape and humans 'produc[es] configurations of meanings and discourses that we can interpret as stories'.¹⁸ In her research on eighteenth-century Anglophone literature, Elizabeth Heckendorn Cook has 'argu[ed] that early modern literary explorations of the borders between human and non-human identities coincided and resonated with the acceleration of a literal global mobilization of the natural world that has enriched and complicated relations among humans and non-human others ever since'.¹⁹

This paper analyses the relation between the ecological and the social in the *Kruid-boek* as a Dutch colonial text in the time of bio-prospecting, and how the representation of material forms from single plants to the landscape as a whole was shaped by this context. Landscape is used in the conceptualisation of Serenella Iovino as a "warehouse" of common memories to humanity and nature, in which human and natural life are dialectically interlaced in the form of a co-presence'.²⁰

¹⁵ Saifur Rohman, 'Story of Big Flood in the Modern Indonesian Literary. An Ecocriticism Study', *International Journal of Language Education and Culture Review*, 1 (2015), 105–112.

¹⁶ Case studies might profit from research in ethnobotany on plants as "Wissensfiguren" as well, cf. Bühler, p. 187ff., and Tinde van Anel, Amber van der Velden and Minke Reijers, 'The "Botanical Gardens of the Dispossessed" revisited: Richness and Significance of Old World Crops Grown by Suriname Maroons', *Genetic Resources and Crop Evolution: An International Journal*, 63 (2016), 695–710.

¹⁷ Isabel Kranz, 'Stumme Zeichen, sprechende Blumen: Von einer Geheimsprache der Liebe zur Lust am Spiel', in Isabel Kranz, *Sprechende Blumen. Ein ABC der Pflanzensprache* (Berlin: Matthes & Seitz, 2014), pp. 6–19 (p. 15f.).

¹⁸ Serenella Iovino and Serpil Oppermann, 'Introduction: Stories Come to Matter', in *Material Ecocriticism*, ed. by Serenella Iovino and Serpil Oppermann (Bloomington: Indiana University Press, 2014), pp. 1–18 (p. 7).

¹⁹ Elizabeth Heckendorn Cook, 'Remaking Eighteenth-Century Ecologies: Arboreal Mobility', in *A Global History of Literature and the Environment*, ed. by John Parnham and Louise Westling (Cambridge: Cambridge University Press 2017), pp. 156–70 (p. 156).

²⁰ Serenella Iovino, 'Ecocriticism and a Non-Anthropocentric Humanism. Reflections on Local Natures and Global Responsibilities', in *Local Natures: Global Responsibilities: Ecocritical Perspectives on New English Literatures*, ed.

The analysis draws on case studies mostly from Book I on trees ‘husbanded by people’, Book VIII on ‘potherbs used for food, medicine, and sport’ and the above-mentioned Books X and XI on ‘wild plants’, with additional material from the *Generale missiven der VOC* and an unpublished eighteenth-century trade dictionary. The first part connects concepts from the history of knowledge to postcolonial ecocriticism, the social aspects of environmental references: how was the material practice of botany connected to the social order? The second and third part question the localisation of the interaction between humans and the environment: how specific were craftsmanship and communication to the Ambonese islands? The fourth part deals with different conceptualisations of nature: how did Rumphius describe borders and boundaries between the animate and the inanimate?

Plant to Paper, Order to Meaning

In the second half of the seventeenth century, botanical practice included observing live plants and collecting samples in the field. When those samples were then transformed into illustrations on paper, this process of abstraction usually meant some loss of information, not only about the plant’s habitat, but about its individual characteristics as well. In the entry on the ‘Petola Leaf’, Rumphius described how he handled a plant that he could not draw to preserve the visual information as best as he could:

Use. None is known, so that it is only displayed as a curiosity that has come down from the mountains. I was unable to depict it with either pen or brush, because the lineaments of the leaves were too ingenious, wherefore I pasted the entire plant here on a piece of paper, all the more so, because when dried, it will preserve its colors better.²¹

Because Rumphius did not limit his practice to plants he would find on the island of Ambon itself, nor the ones he could see himself, his research practice was also based on tactile evidence and oral communication. This is encapsulated in the entry on ‘The Chinese Root, called Ninsi or Ginseng’:

A certain Chinese by the name of Suyky, showed me the shape of the leaves anno 1685. He said he was a Chinese Medicus and that he had seen it grow on a certain Lord’s estate, who ordered it brought there from distant places; and the same Suyky cut the plant shape out of paper for me, as best he could remember, and we used this for the accompanying illustration.²²

In Rumphius’ texts on paper, the ecological and the social go hand in hand, with the botanical material as interface. Because he had lived on the island of Ambon for almost five decades, his natural histories were personalised and localised in a way that stands in sharp contrast to eighteenth-century models and schemata, for example Linnaeus’ *Systema Naturae* from 1735

by Laurenz Volkmann, Nancy Grimm, Ines Detmers and Katrin Thomson (Amsterdam/New York: Rodopi, 2010), pp. 29–54 (p. 31).

²¹ *Herbal*, Book X, chapter 64; vol. 5, p. 176.

²² *Herbal*, Auctuarium, Chapter 56; vol. 5, p. 545.

onwards.²³ In these later texts, there is scarcely a trace of handling concrete materials – botany becomes a two-dimensional map. While the standard reference on botanical etymology in German does reference Rumphius' work, it is delivered in a compressed dictionary format:

Angraecum: Name zuerst als Angraecum gajang (Rumph. 6,108) für eine Orchidee Indonesiens, < indon. anggrék 'Orchidee'. Im einzelnen werden damit die Echte Vanille *Vanilla planifolia* (Sunda, Java anggrék; Heyne 1,509) und 2 Dendrobium-Arten, *D. crumenatum* (malai. anggrék bawang) und *D. pumilum* (malai. anggrék djamboe) bezeichnet (Heyne 1,511). – Nicht *angurek, Boe. 57²⁴

Rumphius' botanical work stands in stark contrast to this compression. He describes the physical appearance of plants in great detail and elaborates on their particular uses. How do material, landscape and stories connect on the pages of the Ambonese Herbal? Rumphius' position as a merchant and scholar was closely intertwined with the VOC castle as their shared reference point, so that he experienced the connections between plants and people immediately. Ordering the natural world had its repercussions on ordering the social world around him, and vice versa. 'Categorising nature also gives us the power to define it [...]. Identifying and classifying may be fundamental tools in objective science, but they also allow us to impose subjective ideologies and beliefs on whatever we are classifying.'²⁵ In the context of the VOC regime in the Moluccas, the classification mostly revolved around the clove and nutmeg trees. One entry in a handwritten dictionary with terms from texts on the Dutch-Asian trade refers to the *hong-i-tochten*, annual military expeditions led by the governor of Ambon to control the VOC monopoly on spice trees. The local leaders were forced to supply their ships for the transport of troops who cut down any wild trees or those deemed uncontrollable.²⁶ The question of control extended to animals as well. On the wild side, there were birds called *noteeters*, especially doves, that distributed nutmeg seeds, which, the entry reads, make the spice tasteless.²⁷ On Banda Neira, in 1683, cows endangered small trees without deep roots on the plantations, and were therefore brought to the neighbouring islands of Ai and Run.²⁸

²³ Cf. the second volume on plants in the 1758 edition, Caroli Linnaei, *Systema naturae per regna tria naturae: secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis* (Holmiae: Impensis Direct. Laurentii Salvii, 1758–59).

²⁴ Helmut Genaust, *Etymologisches Wörterbuch der botanischen Pflanzennamen*. Dritte, vollständig überarbeitete und erweiterte Ausgabe (Hamburg: Nikol Verlagsgesellschaft, 2012), p. 63.

²⁵ *Animal. Vegetable. Mineral. Organising Nature: A Picture Album*, ed. by Wellcome Collection (London: Wellcome Collection, 2016), p. 8.

²⁶ 'Hongi togt is de correccorre Vaart die op en omtrent Ambon Jaarlijks geschiet in welke de Oranncaijen den Gouverneur in die togt van haar volk om te Scheppen assisteeren, de selve geschied gemeenlijk in de nagelooft, om de Extirpatie der Bomen te doen'. Verzameling der Woorden In de Indische Brieven Voorkomende (1758), in *Nationaal Archief*, 1.13.04 – 1240 – Collectie Heeres.

²⁷ 'Noteeters Sijn Vogels als Duijven, die de noten inslikken, en in't geheel weder agter uijt late vallen, waar van Note bomen souden opsiaan, dog de kruigt soude sonder smaak sijn.' Verzameling der Woorden.

²⁸ '[...] er zijn vele jonge bomen aangeplant, die door de zware regens diepe wortels kregen; de koeien zijn van Ai naar Run overgebracht, zodat ze de aanplant niet meer schaden.' *Generale Missiven Gouverneurs-Generaalen en Raden aan Heren XVII der Verenigde Oostindische Compagnie, Deel IV: 1675–1685*, ed. by W. Ph. Coolhaas (The Hague: Martinus Nijhoff 1971), p. 605.

Rumphius writes about the Banda islands as well, and he might have been there when conscripted as soldier, but he writes most specifically about Moluccan islands such as Ternate, which geographically is much closer to Ambon.

In the entry on the 'Inscribed Angrek' (Book XI, chapter 1), botanical geography provides an explanation for social hierarchy, the perceived order of the natural converges with that of the social world. In the beginning, in the very first chapter on 'The Cocos Tree, Calappa', Rumphius had characterised the coconut palm as the 'captain' of his Herbal, thus echoing his own social experience on board of the VOC vessels and his arrival in the Indonesian archipelago: 'you see this tree first, its crown rising above all others'.²⁹ In the last book on plants on land, presumably written at a point in time when he had become familiar with Moluccan rulers and the conflicted militarised regime of the company as well, he used imagery of social status and military defence:

We shall now describe the Aristocracy of wild plants, who convey their nobility by only wanting to live high up in other trees, and never down below on the ground, just as one will commonly see Noble Castles and Fortresses build on high, wherefore they have a strange way of growing and are strangely fashioned, just like Aristocrats flaunting their finery. The Moluccan Princesses add a third reason, to wit, that they will not permit anyone to wear these flowers unless they be Gentle Ladies. But one will also find among these Nobles some who, as the case with people, will change into Peasants, and grow on the ground, and these seem to form a particular family.³⁰

Rumphius repeats this sentiment in relation to the uses of the orchid flowers, connecting the altitude of mountains with the hierarchy of bodies:

The great Ladies of Ternate, particularly the wives, sisters, and daughters of their Kings (which are all called *Putri* in Malay or *Buki* in the Moluccas) reserve these flowers for themselves, and they would put a great affront upon a common woman, not to mention a female Slave, if they were to wear this flower on their head. Wherefore they have these flowers brought from the forest only for them, so they can wear them in their hair, reasoning that nature itself indicates that these flowers are not suitable for ordinary people, because they only grow in high places, which is why it has the aforementioned name.³¹

Botanical practice, not least the physical effort and the bodily sensation, here led to an affirmation of social order. The relation between princesses and slaves seemed to be as natural, which suggested un-changeability, as the relation between the flower and the tree, especially because Rumphius had gone to great lengths to find and handle the material himself. Even the unruly Petola Leaf cannot escape being pressed into the order of the Herbal, and this also with the aim of preserving its natural state as best as he can.

²⁹ *Herbal*, Book I, chapter 1; vol. 1, p. 189.

³⁰ *Herbal*, Book XI, chapter 1; vol. 5, p. 179.

³¹ *Herbal*, Book XI, chapter 1; vol. 5, p. 182.

Soft Plants, Hard Materials: A Landscape of Objects

When historians and art historians analyse the formation and aesthetics of botanical knowledge, their case studies often concentrate on the flow of material into European ports. In recent years the focus has shifted to interactions in the colonised regions themselves.³² As Elizabeth Heckendorn Cook has pointed out, there were substantial exchanges among colonised regions: 'Gardens and fields, ornamental and productive terrains, were both reshaped in this period by the international expansion of colonial and commercial botanical networks'.³³ On Ambon, for example, where natural resources were different to the western Indonesian islands, the Sagu tree was appropriated for military purposes and military techniques localised:

There is also a great demand for the branches and leaves of the Sagu tree, to wit, for building all kinds of houses [...]. Soldiers also discovered that the aforementioned thick bark called *Corurong*, cannot be penetrated by a musket ball [...] wherefore one can rapidly throw up parapets of this material in the field, while the slaves use the same for carrying bricks, stones, lime [...] on their shoulders.³⁴

Across the books of the Ambonese Herbal, Rumphius also referenced plants that had circulated across the Southern hemisphere and been appropriated on different continents, and not only by colonists for commercial exploitation, for example papaya and chili from Southern America by small farmers on the Indonesian islands.³⁵ Most of the times the materials drawn from these circulated plants did not have a prominent aesthetic value. Details of craftsmanship included in the texts refer to relations between nature and culture that had been established for much longer, predating the arrival of European traders and soldiers. In the entry on 'Place, Growth, Use, and Virtues of the Musa' (i.e. banana) there is a close connection between land and sea. The material resource that presents itself first as part of a plant is made into a cultural object through the use of an instrument from part of an animal:

The dry ones [leaves], which have not been torn by the wind yet, are licked smooth with a smooth stone, or with the Seawhelk *Porcellana major*, otherwise *Concha Veneris*, called in Dutch Clack Dishes, a labor called *Bilalo*, which in turn caused the aforementioned whelks to be called *Bia Bilalo*.³⁶

In the entry on 'The Chinese Mater, or Serune', there is a reference to trading networks that had been established before the advent of the European companies in the Moluccas:

³² Cf. Vinita Damodaran (ed.), *The East India Company and the Natural World* (Basingstoke: Palgrave Macmillan, 2015) and Anna Winterbottom, *Hybrid Knowledge in the East India Company World* (Basingstoke: Palgrave Macmillan, 2016).

³³ Heckendorn Cook, p. 156.

³⁴ *Herbal*, Book I, chapter 18; vol. 1, pp. 303–05.

³⁵ Cf. Esther Helena Arens, 'Zwischen Acapulco und Ambon: Zirkulation von Pflanzenmaterial im 17. Jh.', in *Botanical Letters. About Plants, Material Culture, and Colonialism*, <<http://botanical.hypotheses.org>> [accessed 21 February 2017].

³⁶ *Herbal*, Book VIII, chapter 3; vol. 4, p. 15.

The Chinese and all the Malay Nations like to wear these flowers in their hair, both Men and Women, and they are so highly esteemed by those people, that they call the beautiful porcelain plates from Sina *Pingan Serune*, which have many of these flowers painted on them and which are baked into them with blue dye.³⁷

This reference also points in the direction of a possible intersection between materials and ecologies in the wider Asian-European context. From the 1680s onwards, Dutch merchants delivered patterns to the Chinese porcelain producers that may have included flowers, much appreciated by Dutch consumers when painted on plates and bowls.³⁸ In the most specific exchange between a plant and a craft, Rumphius described a loop that almost dissolves the boundaries between nature and culture in the entry on ‘The Large Milky Money Wort’:

Each stem bears a pentagonal little knob that, when it opens, fashions a little flower made of five thickish leaflets, bent backwards, and slightly twisted, of a light-brown color, shiny like plush, with a starlet in the center made of five thick yellow points, which together taper to a tip at the top. The entire flowerlet looks very much like a Cravo, the small golden star that women wear in their ears. [...] The Goldsmiths use the flowers, especially the brown ones, as a pattern to make Cravos, which are the Ear-starlets for women, that have small leaves of gold, and the center is a Ruby or another stone that has been ground to a point.³⁹

Even though Rumphius recorded the material practice of the goldsmiths, and made the product seem a valuable transformation, he did not include comments about the commercial value or trading transaction of the jewellery. Both in terms of nature and culture, the flower/earstud can be read as an example of ‘place-attachment’, in this case ‘at the level of the social collective’.⁴⁰

Plant to Human, or the Communication Materials

The localisation that is so specific to the Ambonese Herbal goes beyond the description of plants utilised for food or medicine as the main focus of bio-prospecting for trade around the world. Scott Slovic has pointed out that ‘[...] environmental expression is a global phenomenon, and while there are certainly important commonalities across cultures, it also seems important to recognise the rich local idiosyncrasies as well’.⁴¹ As part of the ruling elite on Ambon, Rumphius seems to have been an acute observer of communication methods among the ruled. In sections about the use of plants, he preserved a peculiarity rooted in the ecology of the

³⁷ *Herbal*, Book VIII, chapter 54; vol. 4, p. 200.

³⁸ Cf. Jan Veenendaal, *Aziatische kunst en de Nederlandse smaak* (Zwolle/Den Haag: Waanders Uitgevers/Gemeentemuseum, 2014), p. 17f.

³⁹ *Herbal*, Book IX, chapter 77; vol. 4, p. 547 and 549.

⁴⁰ Lawrence Buell, Ursula K. Heise and Karen Thornber, ‘Literature ‘Literature and Environment’Environment’, *Ann. Rev. Environ. Resourc.*, 36 (2011), 417–40 (p. 420). Cf. Bühler, p. 141.

⁴¹ Scott Slovic, ‘Ecocriticism ‘Ecocriticism 101: A Basic Introduction to Ecocriticism and Environmental Literature’Literature’, *Pertanika J. Soc. Sci. & Hum.*, 23 (2015), 1–14 (p. 9).

islands. As he explained at length in the entry about 'Uses and Powers of the Pinang [Tree, Areca]':

However, among the Indies people, especially this Eastern Nation, I have found a certain other way for people to convey meanings to one another, not with letters or figures, but by means of certain leaves, flowers and fruits, of which each one has a specific meaning for them; and even though this *Grammatica Symbolica* is used primarily by lovers and the women folk, I have mentioned it at times in this work to show how clever it is, to wit, such plants whose meaning corresponds with their names and characteristics [...].⁴²

Apart from the Beseeching Grass, mentioned above in the introduction, he noted the gender-specific example of 'The Gandasuli Plant': 'In the Malay Language [of flowers] that is used among the young people, this flower, when sent to a man, says he is fickle and a vagabond in love, just as these leaves are spread wide, and yet the flower is for the most part useless'.⁴³ The 'Reproach Grass' was gendered, as well, 'its sharp and pointed spikes grow aslant, and stick out to the side, as if pointing at a person one wants to accuse':

If someone wants to accuse or reproach someone, especially a lover, or a wife her husband, or a husband his wife, saying that one has to endure some trouble, sorrow, or danger, they will send (that person) a small gift wrapped in the prickly spikes of this plant, thereby informing the other through the name of this herb, that he should withstand some trouble for it.⁴⁴

When the emotion expressed by sending plants was not limited to the language between lovers, it was apparently not limited by gender or age either. The 'Headed Grass' for example, 'will cut a little, when stroked backwards'. Therefore, 'in the Malay Grammar this plant, or really its bearded stem, when sent to someone, means that the person who sent it is troubled, and worried, not knowing what to do'.⁴⁵ As with the Reproach Grass, the naming of 'The Sad Plant' had everything to do with its social use, and not much with botanical categories:

People who consider it a sad plant, send the twigs to each other, when they want to say that they are sad or burdened with cares, deriving such means from the name *Ygo Ygo*, which means a sleeper, or someone, burdened with many cares, who sits down and dozes off.⁴⁶

When writing about 'The Memory Plant', the author of the Herbal switched perspectives. Again, there is a loop between nature and culture when, first, he noted that 'its leaflets stick to clothes, as if to remind a passer-by of something', and then he described the use: 'In terms of the Malay

⁴² *Herbal*, Book I, chapter 6; vol. 1, p. 238.

⁴³ *Herbal*, Book VIII, chapter 20; vol. 4, p. 75.

⁴⁴ *Herbal*, Book X, chapter 10; vol. 5, p. 27.

⁴⁵ *Herbal*, Book X, chapter 4; vol. 5, p. 15.

⁴⁶ *Herbal*, Book X, chapter 30; vol. 5, p. 80.

Grammar, when one sends someone this plant, it says that we are reminding him of something, or that he will think of us'.⁴⁷ The personal pronoun 'us' might suggest identification, Rumphius being part of community and environment himself because of the relation with a local woman mentioned before.⁴⁸ On the other hand, if this passage was recorded after his blindness, the perspective of the listener/writer might have slipped into the manuscript. Another passage about the Beseeching Plant suggests a distance between the scholar and his subjects in a colonial society and possible conflicts in their interactions: 'The Reader is requested not to laugh too much at such trifles, since here, in the Indies, it is often very useful to understand this Hieroglyphic Grammar, in order not to be cheated'.⁴⁹ While Rumphius recognizes rules, hence 'grammar', he does not elevate it to an art form.⁵⁰

If botanical research is about ordering and categorising, even universalising nature in a global context, then the Malay Grammar is about bringing order to individual relations in a locally circumscribed community. In the confines of the early modern genre of natural history, today's reader can, albeit anachronistically, find an example of what Timo Maran has prompted contemporary research to do: 'If material structures are often a precondition of sign processes, then these material structures and sign processes should be studied within the same framework'.⁵¹

Plants, Body, Borders: Material between the Animate and the Inanimate

There is yet another topic that raises questions about material qualities and the relation between the global and the local, the universal and the individual in Rumphius' Ambon. It is the boundary between animate beings and inanimate objects, and the production of hybrids in Latour's sense of quasi-objects between nature and culture.⁵² The human bodies described so far were living bodies, and the flowers and their representation in porcelain and gold could be interpreted as prolonging their lifespan by transforming fragile leaves into durable objects of similar aesthetic value. When Rumphius described the use of 'The Wild White Trong', he detailed a recipe, perhaps having the commodification of the product in mind:

⁴⁷ *Herbal*, Book X, chapter 20; vol. 5, p. 55. Dutch original: 'In de Maleitse Grammatica aan iemand gezonden, wil zeggen, dat wy hem van iets indagtig maken, of dat hy aan ons gedenken zal.'

⁴⁸ Cf. Beekman, p. 63f.

⁴⁹ *Herbal*, Book XI, chapter 9; vol. 5, p. 21.

⁵⁰ Cf. 'grammar, n.', in *Oxford English Dictionary*, online at <http://www.oed.com/view/Entry/80574?rskey=kEhRUY&result=1#eid> [accessed 16 October 2017]: 'the fundamental principles of an art or science'.

⁵¹ Timo Maran, 'Semiotization of Matter: A Hybrid Zone Between Biosemiotics and Material Ecocriticism', in *Material Ecocriticism*, ed. by Serenella Iovino and Serpil Oppermann (Bloomington; Indiana University Press, 2014), pp. 141–55 (p. 146).

⁵² Cf. Bruno Latour, *We Have Never Been Modern* (Cambridge, MA: Harvard University Press, 1991), p. 90, and Bühler, p. 70f.

The flowers are used by the Ambonese to paint their teeth red, which is done as follows: Take leaves of *Varinga Microphyllos*, these flowers, and mace from *Palala Minima*, which the Ambonese call *Palala Niggicau*, grind it all up on a stone, then put it on the teeth, that were scoured before, and they will stay red for 3 days, which the Ambonese consider an ornament for young people.⁵³

Here, the bodily practice hints at a dissolution of boundaries different from the ingestion of food and drink. Making the teeth permeable for the paint changes the construction of inside and outside, and being whole, in European contexts. Interestingly, the *Herbal* contains many passages about the suitability of food and medicine for either Europeans, Chinese, or Ambonese, but does not comment on the practice here, perhaps because of its temporary impact. The practice of painting teeth is neither destabilising colonial boundaries between collectives, nor has it a life-threatening impact on individual bodies. While Rumphius did experience loss in his own family – his ‘housewife’ and two children died in the earthquake that was followed by a tsunami in 1674⁵⁴ – in his writing he focused mostly on life-saving and life-celebrating uses of plants. The entry on ‘The Wild Red Border-Shrub’ moves from wild to worked land, and later to ornamentation and celebrations in places enclosed by this plant:

It grows in low-lying Forests and Valleys, wherefrom it was introduced into our Gardens, where it grows luxuriantly, forming a pleasant sight, either because of the red leaves, or because of its Coral-red flowers and fruits, that look like Currants [...] It is used for decorative arches in gardens, and for weddings, or to make coronets from the flowered branches; the Natives also plant these little Trees at the boundaries of their Land [...].⁵⁵

Translator and editor E.M. Beekman did add a comment here: ‘Rumphius does not mention that they were also used to decorate graves, turning a somber sight into a festive one’.⁵⁶ As there is no source referenced, it is difficult to tell if the use of the plant has changed over time, or if Rumphius did indeed omit this detail. But in the entry on ‘The Domesticall Indian Basilicum’ he does record the use of plant material in times of death according to different beliefs: ‘The Chinese, Moors and Heathens, have yet another use for it, for they place flowering branches of it on the graves of people who have just died, with a pot full of Benjoin and other incense, for all the Eastern Nations believe that the soul is refreshed by some smell of flowers or food’.⁵⁷ In the end, it is not only human communities that create meaning by using botanical materials to shift ‘ecological border-regimes’.⁵⁸ A plant presented itself to Rumphius in a hybrid manner, a historically witnessed ‘Capock Tree’ transcending categories even as it was used to demarcate a line between a cultured and a wild place:

⁵³ *Herbal*, Book VIII, chapter 48; vol. 4, p. 175.

⁵⁴ Cf. Beekman, p. 73.

⁵⁵ *Herbal*, Auctuarium, chapter 51; vol. 5, p. 541.

⁵⁶ *Herbal*, vol. 5, p. 541, footnote 5.

⁵⁷ *Herbal*, Book VIII, chapter 55; vol. 4, p. 207.

⁵⁸ Cf. “ökologische Grenzregimes” in Bühler, p. 185.

Because it grows so quickly, this tree is not only used for garden posts, but also for palisades of fortresses, and are preferred by the Natives for this purpose because bullets will not splinter it as readily as other wood, and also because it roots so firmly in the ground; and I even saw posts of this wood that were dead on one side, yet still growing on the other, and the living side increased so much that it came to cover and grow the other one.⁵⁹

Conclusion: From Single Plants to the Landscape as Material Form

The production of the *Amboinsch Kruid-boek* would not have been possible without the resources provided by the VOC, from books to paper, from illustrators to clerks, from copying to shipping. The VOC, of course, created merchant capitalism structures, and the incentive for botanical research lay in finding more products that could be transformed into commodities for intra-Asian and European markets. Michael Niblett has written about ‘commodity frontiers’ and the development of ecological regimes:

Capitalism unfolds through successive ecological regimes that organize human and extra-human natures in such a way as to enable the production of surplus-value. Labour practices and landscapes, class identities and climatic conditions, forests and financial instruments – all these and more are woven together to create definite historical configurations of nature in service to capital accumulation.⁶⁰

In the Ambonese Herbal, for example, labour practices such as the use of slave labour, and landscapes such as the nutmeg plantations point to a commodity frontier as well as an ecological regime established by the VOC that was detrimental to both plant communities and human communities. The process of colonisation connects spaces like Ambon with islands in the Caribbean:

Tropical islands have not only borne a bigger brunt of colonial patterns of displacement – human and botanic – but continue to be vulnerable to global tourism’s increasing commoditization of islescapes and the ecological risks resulting from an overuse of local resources condensed in ‘bounded’ topographies.⁶¹

At the same time, the ecological and social fabric was not completely disrupted so that Rumphius (or the people willingly and unwillingly taking part in his project) witnessed diverse forms of relations between nature and culture taking shape in botanical materials. The Malay Grammar could be deciphered, but not commodified, because of the immediate connection between growing plants and their significance in human communication. It could only be

⁵⁹ *Herbal*, Book I, chapter 67; vol. 1, p. 503.

⁶⁰ Michael Niblett, ‘Commodity Frontiers, Caribbean Natures, and the Aesthetics of Ecological Revolution in Trinidadian Literature’, in *A Global History of Literature and the Environment*, ed. by John Parnham and Louise Westling (Cambridge: Cambridge University Press 2017), 348–62 (p. 349).

⁶¹ Namrata Poddar, ‘Postcolonial Ecoecriticism, Island Tourism and a Geopoetics of the Beach’, *International Journal of Francophone Studies*, 16 (2013), 51–71 (p. 52).

rooted on the Moluccan islands and defied, at this point in time at least, 'the erasure of local differences for the benefit of a homogenizing transnational economic system', as Isabel Hoving has outlined for the landscapes of the Caribbean.⁶² In the 'Preface, To the Reader' Rumphius claimed the same specificity for his book in relation to its material basis: 'So this work calls itself Ambonese because it was written on Ambon, and it adhered to the shape plants have there'.⁶³ Material from Ambon was stored in a warehouse in the literal sense, especially in the form of cloves, nutmeg and mace. Because the textual reproduction has been stored and preserved in the form of a paper object, it continues to be a warehouse for ecocritical history writing today.

Bibliography

- Andel, Tinde van, Amber van der Velden and Minke Reijers, 'The "Botanical Gardens of the Dispossessed" Revisited: Richness and Significance of Old World Crops Grown by Suriname Maroons', *Genetic Resources and Crop Evolution: An International Journal*, 63 (2016), pp. 695–710.
- Animal. Vegetable. Mineral. Organising Nature: A Picture Album*, ed. by Wellcome Collection (London: Wellcome Collection, 2016).
- Arens, Esther Helena, 'Zwischen Acapulco und Ambon: Zirkulation von Pflanzenmaterial im 17. Jh.', in *Botanical Letters. About Plants, Material Culture, and Colonialism*, <http://botanical.hypotheses.org>, ISSN: 2366-9861, [accessed 21 February 2017].
- Bridge, Gavin, James McCarthy and Tom Perreault, 'Editors' Introduction', in *The Routledge Handbook of Political Ecology*, ed. by Gavin Bridge, James McCarthy and Tom Perreault (London: Routledge, 2015), pp. 3–18 (p. 3).
- Bühler, Benjamin, *Ecocriticism. Grundlagen – Theorien – Interpretationen* (Stuttgart: J.B. Metzler Verlag, 2016).
- Buell, Lawrence, Ursula K. Heise and Karen Thornber, 'Literature and Environment', *Ann. Rev. Environ. Resourc.*, 36 (2011), 417–40.
- Cook, Elizabeth Heckendorn, 'Remaking Eighteenth-Century Ecologies: Arboreal Mobility', in *A Global History of Literature and the Environment*, ed. by John Parnham and Louise Westling (Cambridge: Cambridge University Press 2017), pp. 156–70.
- Damodaran, Vinita (ed.), *The East India Company and the Natural World* (Basingstoke: Palgrave Macmillan, 2015).
- Francia, Susan and Anne Stobart (eds), *Critical Approaches to the History of Western Medicine. From the Classical Antiquity to the Early Modern Period* (London: Bloomsbury, 2014).

⁶² Hoving, p. 75.

⁶³ *Herbal*, vol. 1, p. 175.

- Genaust, Helmut, *Etymologisches Wörterbuch der botanischen Pflanzennamen. Dritte, vollständig überarbeitete und erweiterte Ausgabe* (Hamburg: Nikol Verlagsgesellschaft, 2012).
- Generale Missiven Gouverneurs-Generaalen en Raden aan Heren XVII der Verenigde Oostindische Compagnie, Deel IV: 1675–1685*, ed. by W. Ph. Coolhaas (The Hague: Martinus Nijhoff 1971) – Rijks Geschiedkundige Publicatieën 134.
- Glotfelty, Cheryll, 'Introduction. Literary Studies in an Age of Environmental Crisis', in *The Ecocriticism Reader. Landmarks in Literary Ecology*, ed. by Cheryll Glotfelty and Harold Fromm (Athens, GA/London: University of Georgia Press, 1996), pp. xv–xxxvii.
- Hasskarl, J.K., 'Neuer Schlüssel zu Rumph's Herbarium amboinense', in *Abhandlungen d. Nat. Gesellsch. zu Halle*, IX, 2 (1866).
- Hoving, Isabel, "'Earthly Things". Ecocriticism, Globalisation and the Material Turn', *Frame. Tijdschrift voor Literatuurwetenschap*, 26 (2013), 71–85.
- Iovino, Serenella and Serpil Oppermann, 'Introduction: Stories Come to Matter', in *Material Ecocriticism*, ed. by Serenella Iovino and Serpil Oppermann (Bloomington: Indiana University Press, 2014), pp. 1–19.
- Iovino, Serenella, 'Ecocriticism and a Non-Anthropocentric Humanism. Reflections on Local Natures and Global Responsibilities', in *Local Natures: Global Responsibilities: Ecocritical Perspectives on New English Literatures*, ed. by Laurenz Volkmann, Nancy Grimm, Ines Detmers and Katrin Thomson (Amsterdam/New York: Rodopi, 2010), pp. 29–54.
- Kranz, Isabel, 'Stumme Zeichen, sprechende Blumen: Von einer Geheimsprache der Liebe zur Lust am Spiel', in Isabel Kranz, *Sprechende Blumen. Ein ABC der Pflanzensprache* (Berlin: Matthes & Seitz, 2014), pp. 6–19.
- Latour, Bruno, *We Have Never Been Modern* (Cambridge, MA: Harvard University Press, 1991).
- Linnaei, Caroli, *Systema naturae per regna tria naturae: secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis* (Holmiae: Impensis Direct. Laurentii Salvii, 1758–59), via Biodiversity Heritage Library <<http://www.biodiversitylibrary.org/bibliography/542#/summary>>, [accessed 21 February 2017].
- Mackenthun, Gesa, 'Postkolonialer Ecocriticism', in *Ecocriticism. Eine Einführung*, ed. by Gabriele Dürbeck and Urte Stobbe (Köln/Weimar/Wien: Böhlau, 2015), pp. 81–93.
- Maran, Timo, 'Semiotization of Matter: A Hybrid Zone Between Biosemiotics and Material Ecocriticism', in *Material Ecocriticism*, ed. by Serenella Iovino and Serpil Oppermann (Bloomington; Indiana University Press, 2014), pp. 141–55.
- Merrill, E.D., *An Interpretation of Rumphius' Herbarium Amboinense* (Manila: Bureau of Printing, 1917).
- Niblett, Michael, 'Commodity Frontiers, Caribbean Natures, and the Aesthetics of Ecological Revolution in Trinidadian Literature', in *A Global History of Literature and the Environment*, ed. by John Parnham and Louise Westling (Cambridge: Cambridge University Press 2017), 348–62.

- Poddar, Namrata, 'Postcolonial Ecocriticism, Island Tourism and a Geopoetics of the Beach', *International Journal of Francophone Studies*, 16 (2013), 51–71.
- Rohman, Saifur, 'Story of Big Flood in the Modern Indonesian Literary. An Ecocriticism Study', *International Journal of Language Education and Culture Review*, 1 (2015), 105–112.
- Rumphius, G.E., *Het Amboinsche Kruid-boek* (Amsterdam et al. 1741 ff.).
- , *The Amboinese Herbal*, translated, annotated and with an introduction by E.M. Beekman (New Haven and London: Yale University Press, 2011), vols 1, 4 and 5.
- Schiebinger, Londa, *Plants and Empire. Colonial Bioprospecting in the Atlantic World* (Cambridge, MA: Harvard UP, 2004).
- Sedláčková, Lucie, 'Ecologische thematiek in hedendaagse fictie. Uitdagingen van milieufilosofie, ecokritiek en animal studies voor der Nederlandstalige literatuur', *Werkwinkel*, 10 (2015), 99–114.
- Slovic, Scott, 'Ecocriticism 101: A Basic Introduction to Ecocriticism and Environmental Literature', *Pertanika J. Soc. Sci. & Hum.*, 23 (2015), 1–14.
- Veenendaal, Jan, *Aziatische kunst en de Nederlandse smaak* (Zwolle/Den Haag: Waanders Uitgevers/Gemeentemuseum, 2014).
- 'Verzameling der Woorden In de Indische Brieven Voorkomende (1758)', in *Nationaal Archief*, 1.13.04 – 1240 – Collectie Heeres.
- Wear, Andrew, 'The Early Modern Debate about Foreign Drugs: Localism versus Universalism in Medicine', *The Lancet*, 354, 1999, 149–51.
- Winterbottom, Anna, *Hybrid Knowledge in the East India Company World* (Basingstoke: Palgrave Macmillan, 2016).

About the author

Esther Helena Arens is historian and postdoc researcher at the Institute of Dutch Language and Literature, University of Cologne. In the interdisciplinary DFG-funded project 'Circulation in Spaces of Knowledge Between Asia and Europe: G.E. Rumphius and his Texts, circa 1670–1755', she focuses on questions of material culture and coloniality.