Mangroves – Captured By The Keen Eye Of A 17th Century Landscape Painter

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Artists and scientists alike came across unfamiliar landscapes and strikingly strange fauna and flora when they embarked for the ‘colonies’. In the 17th and 18th centuries curiosity for the exotic developed into direct scientific observation, which is often still appreciated scientifically today, such as in biological taxonomy. Often observation, interpretation and reporting were geared towards functional aspects, a resourcist view on the environment in the wake of the colonial enterprise. This entailed that focus could be biased towards aspects of mercantile, political or strategic interest. Landscape vision is no exception for the possible biases. The Dutch painter Frans Post during his 7 year stay in the New World (Brazil) in the 17th century was the first to depict mangroves as a very characteristic tropical vegetation, unfamiliar to Europeans, in spite of its limited interest in the context of colonial economy. He did this in the strong and developing tradition of Dutch landscape painting.

KEYWORDS Brazil, colonialism, Dutch East India Company, Dutch West India Company, Itamaracá, landscape painting, VOC, WIC.

Introduction

Frans Janszoon Post (1612–1680), a 17th century Dutch painter, is often credited to be the first to depict and hence give a European glimpse of the New World (Ducos 2005). Coming in the retinue of count Johan Maurits van Nassau-Siegen (1604–1679), governor-general of
Dutch Brazil and arriving there in 1637, he was commissioned to draw and paint the young Dutch colony. He did so during the 7 years of his stay in the New World (1637–1644) and returned to the Low Countries carrying material that would prove to be of high documentary value. In his later career, he continued painting scenes inspired by his Brazil experience. According to van Groesen (2011) there is abundant literature about the ‘humanist’ period in Brazil under the rule of Johan Maurits, between 1637 and 1644. This period has also yielded extraordinary natural history documentation, which however needs further scrutiny.

Much has been written about both the painter Frans Post and his work, which is now spread all over Europe and beyond. Most famous are his Brazilian landscape paintings, several being conserved at the Louvre in Paris, after having been presented by Johan Maurits to the French King Louis XIV in 1679. Many of these were painted by Frans Post after his return to the Low Countries (van Groesen 2014). These colourful scenes are a varied and attractively painted rendering of a tropical environment, often studded with exotic elements, whether human, or regarding fauna and flora. Sugar mills give a glimpse of the prevailing sugar industry, and ruins of former Portuguese buildings, slaves and masters in apparent (socially layered) harmony tell a story of a productive new colonial society (Michalsky 2005, Sutton 2013), however with the ambivalence and the challenges which this colonial enterprise brought along (Oliver 2013).

Several authors have indeed stressed the idealizing rendering of a colonial and tropical setting, intended for a wealthy Dutch home clientele, partly from the imaginary and partly obviously based on sketches and earlier observation (Oliver, 2013). Hardship of life in the colony and the degrading aspects of slavery are not shown. The mixture of both, though having documentary value as regards elements of fauna and flora, has been considered to fit the political priorities of Dutch society. The Geoctroyeerde Westindische Compagnie (Dutch West India Company) was the chartered trading company behind the Brazilian colonial enterprise. Its view of an idealized yet lost colony (after 1654), sometimes either as a metaphor rather than as a precise location or as ‘a Holland in Brazil’ (Corrêa do Lago 2006, Vieira 2012, Oliver 2013), is intimately associated with the pictorial products.

Viewing Post’s work with the eyes of ecologists and geographers we were struck by the realistic landscape and vegetation rendering encountered in a painting made by Frans Post in the earliest phase of his Brazilian period, the View of Itamaracá island in Brazil from 1637 (fig. 1a). It is immediately clear that the colour palette of this painting made by Frans Post in Brazil, is comparable to the Rio São Francisco (1638), in the Louvre Museum in Paris, and also painted in Brazil. Both offer a naturalistic and much less idealized view of the landscape as compared to the post-1644 canvases described earlier, a ‘landverkenning’ (land reconnoissance) sensu Krempel (2006). Various authors have commented on the scenes in View of Itamaracá island in Brazil (1637), a presentation that is also considered very characteristic for the social relations in the young Dutch colony New Holland (Dutch Brazil). It is reported to show the colony’s inhabitants in their respective hierarchical position, the scene possibly depicting their waiting for transport to Fort Oranje on the opposite river bank (Michalsky 2005).

Particularly striking is the very clear detail (fig. 1b) that we interpret as a forest of Avicennia sp., a mangrove tree species. Both its position at the water edge, in the
Frans Post, *View of Itamaracá island in Brazil*, 1637, oil on canvas, 62 cm × 89 cm (Mauritshuis, The Hague, Accession Number 915).

Frans Post, detail from *View of Itamaracá island in Brazil*, 1637, showing *Avicennia* sp., with pneumatophores (breathing roots, pencil roots), oil on canvas (Mauritshuis, The Hague, Accession Number 915).
intertidal zone (Itamaracá has a mean tidal amplitude of c. 2m) and the pneumatophores, the pencil roots rising from the mudflat (a very recognizable adaptation in *Avicennia* spp. to the hypoxic substrate, cf. fig. 2), are unmistakable. Today, the environment of Itamaracá has a mixed mangrove assemblage comprising amongst others the tree species *Rhizophora mangle* L., *Avicennia schaueriana* Stapf and Leechman ex Moldenke and *Laguncularia racemosa* (L.) Gaertn. f. (Medeiros et al. 2001, Farrapeira 2008, Moura et al. 2009). Although the geomorphology of the area may have changed in some localities during recent times, due to human protective constructions such as seawalls (Medeiros
et al. 2001), historical and more recent cartographic evidence suggests that the general geomorphology very likely remained suitable for mangroves to establish throughout the centuries. Hence, there is no reason to believe that any other type of species assemblage existed in the 17th century or earlier, though through the dynamics of such systems species proportions can shift.

With the vegetation on the islet in the estuary of Post’s View of Itamaracá island in Brazil (1637) (fig. 1a), showing a mangrove forest, this is, to our knowledge, the first unambiguous depiction of this type of vegetation in the history of (European) art and hence probably of art altogether. Mangroves are woody plants that grow normally in tropical and subtropical latitudes (32.28° N for the northernmost limit in Bermuda and 38.45° S for the southernmost in East Australia, Quisthoudt et al. 2012) along the land-sea interface, bays, estuaries, lagoons, and backwaters. These plants and their associated organisms constitute the “mangrove forest community” or “mangal”. The mangal and its associated abiotic factors constitute the “mangrove ecosystem” (Mukherjee et al. 2014). They consist of a fairly limited set of species (considering the species richness at respective latitudes in neighbouring terrestrial environments) of approximately 70 species of 17 families of plants (Polidoro et al. 2010). Many of these species have adaptations to the demanding environment, with high or changing salinity levels, hypoxia, flooding, and tidal dynamics. Most conspicuous are the root systems and propagules, i.e. the water-borne dispersal units of many species. Many mangrove assemblages worldwide are dominated by species of the specialized genus Rhizophora, with aerial stilt roots, or of the specialized genus Avicennia, with aerial pencil roots. Mangroves are now known to have crucial ecological roles in coastal ecosystems. These comprise shoreline protection and a major nursery role to marine and pelagic fauna, often species of interest for fisheries (Lee et al. 2014). Human coastal communities have relied on such ecosystem services and still do so in many countries worldwide. Recently, the carbon sequestration role of mangroves was reported to exceed similar functions by the much better known tropical terrestrial forests (Donato et al. 2011) when considered per unit area.

To a fresh observer like Frans Post, when arriving in Brazil, the respective root systems would have been the immediately most recognizable and quite unfamiliar feature of mangroves. Frans Post apparently had a keen eye to register this striking tropical coastal vegetation. Apart from the fact that the painters of the Low Countries set the scene in European naturalistic landscape painting, as witnessed by painters contemporary to Post in his home country (birth date ordered from 1585 to 1638: Hendrick Avercamp, Gerrit Claesz Bleker, Pieter de Molijn, Jan Josephszoon van Goyen, Salomon van Ruysdael, Philips Koninck, Aelbert Cuyp, Cornelis de Man, and Meindert Hobbema, amongst others), it may not be by accident that Post as a Dutch painter developed this keen eye for the landscape and its peculiar features. The Low Countries including Post’s home town Haarlem were essentially marshes, ditches, canals, willow assemblages, estuaries and riverscapes, reminiscent of some of the background in Post’s work (see for example Fort Frederik Hendrik, 1640, Instituto Ricardo Brennand, Recife; Landscape with anteater, 1649, Alte Pinakotheek, Munich). Pieter-Paul Rubens (from the Southern Low Countries) in his well-known work Pan and Syrinx (1619, Staatliche Kunstsammlungen,
Kassel, Germany) depicted in great realism a reedbed with astonishing botanical landscape-detail two decades before Post’s ‘Itamaracá’, but focused on the mythological scene and botanical details rather than on the landscape and its features. The botanical details are relevant to the scene with reeds as a syrinx-construction material. However, none of the European marshlands look like mangroves and this may have caught the eye of Post.

One can wonder why, knowing the dependence of local communities on mangroves and on their services today and the unfamiliar sight of these marine forests, they have not left many more traces in early colonial painting, nor in later depiction of systems which obviously were bearing extensive mangrove forests at the moment of observation. A good example of this lasting neglect would be the various engravings and works of art showing the Dutch settlement of Negombo in Ceylon (trade posts and fortifications of the Dutch East India Company VOC, Negombo: 07°09’ N; 79°51’ E), which are entirely covered in mangroves today and would have been so in the 18th century. However, nothing unequivocally pointing at very striking mangrove forests (here mostly *Rhizophora* spp. with impressive stilt roots) has been shown by Pieter Cornelisz De Bevere in the drawing *J. G. Loten and his Company fishing in the River of Nigombo in Ceylon* from c. 1754 (fig. 3) or the coloured drawing *View on the Fort of Negombo* from 1753 (fig. 4) by an anonymous artist.

This, on the other hand can be explained by the fact that mangroves in spite of their importance to local communities had little or no relevance to a colonial and trading empire like the ones developed by the two companies, i.e. the Dutch East India Company.
None of the mangroves’ products presented any commercial interest, which could be exploited and traded. Wood needed for forts has been reported to be shipped from the Low Countries and wood encountered by the colonial enterprise in the marshy environment was considered unsuitable for solid constructions or inaccessible because of insecurity (Van Nederveen Meerkerk 1991, 2006). The wood was also described as difficult to be cleaved in an 18th century source (Hartsinck 1770).

This then aligns with the statement that much of Post’s painting, certainly the post-1644 scenes, as well as works by his fellow painters, follow either a political programme and/or the customers’ interest for the exotic and particularly the economically valued exotic elements (e.g. Erkan 2012). In spite of this, elements of naturalistic and scientific interest were also expressed in the 17th century Dutch painting (Teixeira 2006).

One may compare to Rumphius’ botanical work, the most remarkable *Amboinsch Kruid-boek* (1743), a nature-historical (and soundly taxonomic) survey posthumously published in Dutch and Latin (Rumphius 1743, but dated earlier), on the island of Ambon, Dutch East Indies. It describes several mangrove species, their use, as well as their role in the local environment and for the local communities in much validated detail, but hardly of any interest for the colonial enterprise of the Dutch merchant republic. Rumphius was a German military engineer employed at the VOC (after also having intended in vain to work in Brazil for the WIC) and then continued as a publishing scientist almost 100 years after Post observed mangroves in Brazil. Though Rumphius had access to local knowledge and gives very detailed information on mangrove uses1,2, none of them seem of any major trading interest and would not have attracted the company’s lasting attention. Rumphius cross-refers to mangroves in the West Indies3, showing the flow of
scientific information, mainly through the Dutch republic. The lack of major trading interest also appears from Hartsinck’s description of West-Indian mangroves (1770)\textsuperscript{4}, of congeneric species that are mostly comparable to Rumphius (\textit{l.c.}). Hence the mercantile intentions of the observer or his patrons will also direct the painter’s eyes, which makes Post’s sharp observation of the common and unremarkable coastal vegetation in Brazil in the first half of the 17\textsuperscript{th} century, remarkable.

If we try to trace Post’s acquaintance with mangroves as unfamiliar tree types, we could consider how well the awareness of a particular type of marine forests was at the time. In 1594 André Álvares de Almada describes the mangrove forests of West Africa in his \textit{Tratado breve dos rios de Guine} (‘Brief Treatise on the Rivers of Guinea’) with very recognizable words (Álvares de Almada 1594), \textit{inter alia} mentioning that their size would make them good ship masts, if they were not so heavy (because of high wood density)\textsuperscript{5}. The uses mentioned are again not very significant for mercantile interests. Contact between a Portuguese body of ‘coastal knowledge’ to Dutch observers (and later \textit{vice versa}) is highly probable, in view of the permanent interaction between the two cultures. For the Indian Ocean colonial powers (and East India Companies) botanical and zoological information was considered ‘classified’ because of its potential to generate wealth in the respective home countries. However, in spite of this competitiveness and secrecy,
also scientific exchange and interaction took place. The posthumous publication date of Rumphius’ work was reported to reflect its classified nature, but at the same time the work frequently cross-refers to other bodies of knowledge in contemporaneous sources (Barnard 2015, Kathirithamby-Wells 2015, Winterbottom 2015).

If Post’s etching Arx Archijn from 1645 (fig. 5) indeed represents ‘Argijn’ (as suggested by the Atlas of Mutual Heritage, i.e. the island Arguin in the Banc d’Arguin, present day Mauritania: 20° 25’N; 16°37’W), there is a striking detail (fig. 5, small tree to the left of the fort). At that latitude there are no (mangrove) trees, the northernmost trees (which are mangrove trees, again of the genus *Avicennia*) indeed occur c. 80 km south of Arguin today (Dahdouh-Guebas & Koedam 2001). A West-African passage by Post has been suggested by Krempel (2006) which would allow for Post’s direct observation of these shores. The latitudinal limit for mangroves may have changed over time, and in view of the tree’s position on the shore and a hint of pencil roots, this etching may be another early mangrove representation, though this is somewhat doubtful in our opinion.

Less equivocal are two other etchings by Post: View on I. Tamaraca from 1645 (fig. 6) and Caput S. Augustini from 1647 (fig. 7). The first is the very same landscape as on Post’s View of Itamaracá island in Brazil (1637) (fig. 1a), but with a wider perspective, showing Fort Oranje to the right. For the remainder, its natural setting is faithful to the (earlier) painting, in contrast to the staffage. Mangrove vegetation does not appear
unequivocally on the islet middle left, as on the painting, but this is obviously due to the scale not allowing pencil roots to be etched proportionately. Johannes Vingboons’ much later rendering of the same scene (1665), an aquarelle present in the National Archive at The Hague, emphasizes the mudflats or sandflat, but no longer shows any mangrove in a recognizable way. At that moment there was no Dutch access anymore to the scene in Brazil and the details have apparently been obliterated or considered irrelevant. On Post’s 1645 etching *View on I. Tamaraca* mentioned above (fig. 6), he depicts a mass of plants that must be identified as *Rhizophora*. This is the other globally prevailing mangrove genus, with its stilt roots. Possible confusion with other, terrestrial species is obvious through this terminology, as cross-reference between mangroves in a modern sense and non-mangroves with somewhat similar morphology or critical reference to such confusion can be found in 18th century documents (Rumphius 1743, Hartsinck 1770). Post depicted the presumed mangrove vegetation slightly above the high water line in our opinion. One might see typical remnants of former mangrove in the lower intertidal on the same etching. *Rhizophora* also seems to be shown prominently on the etching *Caput S. Augustini* (1647) (fig. 7), present day Cabo Santo Agostinho. In both cases they appear as open and somewhat degraded mangroves, typical for environments with strong human impact, such as landings. With a mean tidal amplitude of approximately 2m in Itamaracá, the vegetation shown could be partially water-covered at high tide,
if indeed low tide is shown by Post. Then again, on the painting View on Frederikstad (1638, private collection) as well as on the etching Parayba from 1647 (fig. 8) which covers the same scene, presumptive pneumatophores of *Rhizophora* can be discerned, as was suggested by Teixeira (2006). It is remarkable that the two works, with about a decade difference, have different staffage and fauna. However, both putatively show mangroves, though not represented in exactly the same position in order to leave space for a canoe with two people in the etching.

We can wonder whether these elements, obviously marginal in Post’s objective when making his final products, are mere exotic touches, as has been emphasized for elements in several of his paintings. We think this is not the case, since in other graphic material such as Arx Principis Guilielmi from 1647 (fig. 9), steep shores are shown, less conducive to mangrove development, and here Post shows no obvious and recognizable mangrove species.

In conclusion, we have, to our knowledge, reported the first reliable mangrove representation as vegetation, not as an ornament in a scene or as an exotic touch. Post’s works show at least two mangrove tree species, from the genera *Avicennia* resp. *Rhizophora*, worldwide the most important mangrove genera. Both genera are geographically wide ranging, both ecologically strongly adapted and highly recognizable. It has been argued that Post represented the Brazilian environment in a politically oriented perspective (in the
widest sense), later even in a metaphoric, not even site-related framework (Oliver 2013). Though this may be true for much of his work, particularly after his return to the Low Countries, we have shown that Frans Post had a very sharp eye for his new environment right from the first year of his presence in the New World, and that as a Dutchman in a time that landscape painting strongly developed, he recognized particular features of a marshy environment, so different from the one he knew from his youth.

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Notes

1 “Van dit hout kan men niets hebben tot timmerhout bequaam, om dat het zo krom en quastig is, daarentegen geeft ‘t goed brand-hout, evenwel’t vuur zo ligt niet vattende, als ‘t voorschreven Lalary hout.” “Of this wood nothing may be obtained as carpenter’s wood, because it is bent and knotty, however it is good fuelwood, though it does not burn as readily as the Lalary wood described earlier.”

2 “‘t Hout van de eerste of witte zoorte is zeer gebruykelyk tot den scheeps-bouw, om ribben en krommuren daar van te maken, uyt deszelfs kromme takken daar uyt men dan de natuurlyke kromt naar een voorgestelt model kan hakken. Het is niet alleen durabel in zee-water, maar heeft ook die deugden, dat het niet ligt splyt, en de spykers trouwelyk houd.” “The wood of the first or white species is very commonly in use for ship building, to make ribs and knee timber, from the same curved branches from which the natural curving can be cut into a model. It is not only durable in seawater, but it also has the benefits of not cleaving, and that it holds nails very well.”

3 “Mangle, waar van de Schryvers van West-Indie dikwils gewag maken, moet men voor een en ‘t zelfde, of immers voor een naaste zoorte van ‘t Oost-Indische Mangi Mangi agten; dog bemerk ik doorgaans by dezelve een abuys, dat zij ‘t Mangi Mangi niet veel weten te onderscheiden van de Varinga, om dat byde de boomen van baare takken wortelen in de aarde schieten.” “Mangle, often mentioned by the writers of the West-Indies, must be considered to be the same species or at least very related to Mangi-Mangi in the East-Indies; however I notice with the same that they erroneously do not succeed in distinguishing the Mangi-Mangi from the Varinga, because both trees shoot roots into the soil from their bare branches.”

4 “Eenige Indianen, zo als de Guaranos of Warouwen, die meest aan de Rivieren en Moerassen woonen, plaatsen, om van de Overstroomingen bevryd te zyn, hunne Hutten op de Mangles- of Mangrove Boomen, welke, gelyk wy nader zullen beschryven, in zout en zoet Water kunnen groeijen, en welker op de grond hangende Takken weder uitspruiten, zo dat de Bosschen van Mangrove Boomen dermaeten dicht en vast zyn, dat men op de Takken kan gaan, en Hutten bouwen.” “Some Indians, such as the Guaranos or Warouwen, who mostly live along rivers and swamps, places safe from inundation, their huts built on mangles or mangrove trees, which, as we will describe in more detail, can grow in salt and fresh water, and the branches of which hang on the soil and resprout, so that forests of mangrove trees are so dense and fixed that one can walk on the branches and build huts.”

“Men heeft ‘er drierlei soort van Mangles Boomen, by ons Mangrove of Duizendbeenen en by de Indianen Courouda genaamd, de zwarte roode en witte. De zwarte Mangrove groeit altyd aan den Zeekant of op de Boorden der Rivieren: zyn Schors, die tot Leertouwen gebruikt wordt, is zeer bruin, glad en buigzaam nog groen zynde, ter dikte van een Schelling; het Hout is van dezelfde Kleur als de Schors, hard, buigzaam en zwaar, ongemakkelyk te bewerken, en splyt moicielyk, en geeft gelyk alle zwaare Houten, een goeden brand; de Bladen zyn dun en glad, veel gelykende naar die van den Laurierboom. Deeze Boom is niet zeer hoog, zynde zelden boven de twintig of vyf en twintig Voeten lang, en dertien of veertien Duimen over het kruis dik; hy schiet veele Takken uit, die recht en zonder kwasten zyn, welker afhangende Toppen, nederzakkende, in den Grond of in het Slyk der Rivieren, Wortel schieten, en als nieuwe Stammen maaken, doch tevens een Bosschage zo dicht
in malkanderen, dat men ligtelyk daar over kan gaan zonder Grond te raaken; kunnende één Boom zich somtysd wel výf honderd schreden ver uitspreiden. Ook schiet deeze Boom, boven de Grond, verscheide Wortelen, die zich in de Aarde hechten, waar door hy somwylen vier of výf Voeten boven de Grond staat; zo dat de plaatsen, daar die Boomen groeijen, moeiylyk te begaan zyn. Dezele groeit schielyk, en bederft niet in het Water. Aan de gedachte Wortels is het dat de Oesters zich hechten: waar uit het Vertelst is ontstaan, dat de Oesters aan de Boomen groeijen. De roode Mangrove, schoon deeze aan de Stranden der Zee of by de Rivieren groeit, schiet echter geen Wortels in het Water gelyk de zwarte, is ook van onooiylyk gedaante, hebbende kromme en kwastige Takken, die zich naar den Grond buigen en een goed gedeelte lands beslaan. De Vrucht is dun en graauw, glad als de Boom jong is, maar vol barsten als hy ouder wordt. Het Hart van den Boom is roodachtig, dat door koken in het Water een schoone roode Kleur geeft, waar mede men Wol en Linnen kan verwen, doch is niet standvastig, ook is het Hout tot Timmerhout dienstig, zyne hard en zwaar, van een donker rood, fraai gevland. De Bladen zyn eirond, op het dikste acht of negen Duimen breed, maar aan het dunne eind, waar mede zy aan den Boom met een korte Steel zyn gehet, niet meer dan výf of zes Duimen; eerst uitspruitende zyn dezelve van een Vleeskleur, zeer zacht en teder, doch ouder wordende van boven naar onder eenigszins bleeker. Hy bloeit en draagt eens in ‘t jaar Vruchten: voor een aangenaam groen van onder eenigszins bleeker. De vruchten gelyk de witte Mangrove, groot vier lyn over het kruis, in ‘t eerst groen, maar ryp zynde Violet van Kleur. De witte Mangrove groeit tot een redelyke hoogte en zonder kwasten, mede aan de kanten van het Water, waar over zyne Takken zich uitspreiden, die, als zy de Aarde raaken, ook de gemelde eigenschap hebben, van aldaar Wortel te schieten, als gezegd is. De Bast is bruin, en niet dikker dan een Gulden, onder welken nog een dunne witte Huid wordt gevonden, waar van de Indiaannen lange Draaden trekken, daar zy Touwen, Netten en Hamakken van maken. Het Hout is wit en, nog groen zynde, zeer buigzaam, maar droog wordende broos en ligt, van binnen vervuld met een Merg als de Vlierboom. De Bladen zyn byna rond drie of vier Duimen over het kruis, zeer glad, teder en zacht. Tweemaal ‘s jaars brengt deze Boom gelee Bloemen voort, van gedaante als Tulpen, maar veel grooter, doch geeft geen Vruchten. Men vindt op de Bergen nog de zwarte en gelee Mangrove."

"There are three species of Mangels trees, which we call Mangrove or Thousand legs and with the Indians the black, red and white named Couronda. The Black mangrove always grows at the seaward side or along the river banks: its bark, which is used for rope tanning, is very brown, smooth, and pliable, and when green, as thick as a shilling; the wood is of the same colour as the bark, hard, pliable and heavy; difficult to shape and to cleave, and has like all heavy woods, a good burn; the leaves are thin and smooth, much alike the Laurel tree. This tree is not very high, seldom above 20 or 25 feet tall, and 3 or 14 thumbs across thick; it has many branches that are straight and without knots, with hanging tips, sinking in the soil or the river mud and take root, and if they make new stems, but also a shrub so tightly together, that we can slightly walk over it without touching the floor; a single tree can sometimes stretch 500 steps. This tree also makes roots above the soil, which anchor in the earth, raising it sometimes 4 or 5 feet above the soil, so that places where the tree grows are difficultly accessible. On the roots considered oysters attach: resulting in the tale that oysters grow on trees. The red Mangrove, despite growing at the coastal beaches or by the rivers, does not make roots in the water such as the black one, is also of a different habit, has curved and knotty branches that bend down and occupy a fair part of the land. The bark is thin and grey, smooth in young trees, but full of fissures when it grows old. The heart of the tree is reddish, that after boiling in water gives a beautiful red dye with which wool and linen can be dyed, however, it is not persistent, also the wood can be used as timber, being hard and heavy, of a dark red nice flame. The leaves are oval, the thickest being 8 or 9 thumbs wide, but at the thin end, with which it is attached to the tree with a short stalk (petiole), not more than 5 or 6 thumbs; when emerging they are flesh-coloured, soft and tender, yet older (leaves) become of a pleasing green, yet slightly lighter at the lower surface. It flowers and fruits once a year: before it flowers, like a grapevine, it shoots small racemes on which small buds appear, that upon opening reveal a white blossom, of pleasant smell. The fruits resemble large grapes, four lines across first of green, but when mature of violet colour. The white Mangrove grows up to a fair height and without knots, also at the sides of the water, over which branches extend, which, if they touch the earth, also have the already mentioned characteristic of taking root. The bark is brown, and not thicker than a gulder, under which one can find a white skin, from which the Indians extract long fibres to make ropes, nets and hammocks. The wood is white and, when green, very pliable, but when dry brittle and light, at the inside filled with marrow like in the Elder tree. The leaves are almost round 3 or 4 thumbs across, very smooth, tender and soft. Twice a year this tree brings forth yellow flowers, of a tulip aspect, but much larger, however no fruits. On the mountains we also find the black and yellow mangrove."
5 “Na entrada deste Rio, vai sendo assim de huma banda como da outra a terra chán, mas toda coberta de muito arvoredo de mangues, tão altos e grossos que, se não fôr a pão tão pesado, podião fazer delles mastos para navios de bom porte, e outros pãos de muito boa madeira forte, de cores, adamascados e vermelhos, que lá chãmão de Carvão. Estes mangues chegão até onde chega a maré da agoa salgada e, ali acabão.”

“At the entrance to this river, the land on each side is flat but completely covered with a thick forest of mangroves, trees so tall and so thick that if their wood were not so heavy they could provide masts for ships of large tonnage. And there are other trees that have very good and hard wood, in colour apricot or red, called there charcoal-wood. The mangroves extend (inland) to the tidal limit of salt water, and there they stop.”

6 Sometimes called ‘wortelboom’ in old yet later Dutch texts (Teenstra 1835) and in Dutch-derived Afrikaans or with the expression ‘duizendbeen’, thousand legs as in Hartsinck (1770).

7 They would have occurred and still occur in the vicinity in view of the general geomorphology and topography.

References


Hartsinck, Jan Jacob. Beschrywing van Guiana, of de wilde kust in Zuid-America. Amsterdam: Gerrit Tielenburg, 1770.


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