



Photo Essay

Pink Lotus Absolute

Profound botanical and human history

by Rachael Shapiro

Pink lotus, *Nelumbo nucifera*, with a geologic record dating back 135 million years, is one of nature's most ancient aromatic botanicals. However, until recently, it was not available as a commercial perfume material. In fact, now that it is available, we are able to evaluate and utilize the same scent enjoyed by the dinosaurs. This is a truth worthy of attention!

As humans we are compelled to discover and investigate our surroundings. Perfumers are among the explorers of the earth, enabling the rest of the world to experience new fragrances through the new materials they have discovered. I was recently able to make my own quest — in this case, in search of pink lotus absolute. In meeting the lotus flower growers and collectors, agents and brokers, and inspecting the biomass through all steps to its extraction, my knowledge grew.

There are basic steps involved in introducing new perfume materials to the industry. All the logistical steps must be in place in order to offer a secure supply chain for successful product manufacture. As I like to put it, everyone involved from supply to creation must “see to believe and believe to see.”

The pink lotus absolute's sensory experience is its culture and environment; an irresistible story that I am happy

to narrate. The past is prologue: over 20 years ago I traveled in India for six months, from the Punjab region to the city of Mumbai/Bombay. Each moment of the trip, filled with botanical discovery, foretold my future career. Decades later, I clearly remember the lotus ponds' visual and sensory details.

In 1996, I first learned about and evaluated various lotus absolute samples. I made a list of all the logical and logistical challenges for successful commercial production. The lotus grows in untended deep muddy ponds. I could not conceive of the biomass collecting logistics. Only an on-site inspection — seeing to believe — would convince me of viable sustainable commercial production.

In October 2002, the principals of Jasmine Concrete Exports Private Ltd. — S. Palaniswamy Raja, Vasanth Venkatasamy, A.K. Venkatasamy and P. Shanmugham — extended the invitation for an on-site inspection of the pink lotus

supply chain. I accepted in a heartbeat! Just a few days before Christmas 2002 I boarded my flight for Chennai/Madras.

On Christmas we departed Chennai/Madras, the east coast capital city of Tamil Nadu, for Trivandrum/Thiruvananthapuram, the west coast capital city of



Photos by Rachael Shapiro

Kanyakumari is at the heart of pink and white lotus land.

Pink Lotus: India



Material identity and specifications:

- *Nelumbo nucifera*, family: Nelumbonaceae (note: lotus is not a water lily)
- CAS# 85085-51-4
- EINECS# 285-379-2
- Suggested use at 0.40 percent
- Highly diffusive
- High tenacity

Odor and appearance:

- Sweet, floral, peony-like, ethereal and earthy, medicinal twinges, resinous odor profile
- Huge dinner-plate size, highly fragrant flowers, composed of seemingly thousands of glowing pink petals
- Material color: dark reddish brown, slightly resinous

History and distribution:

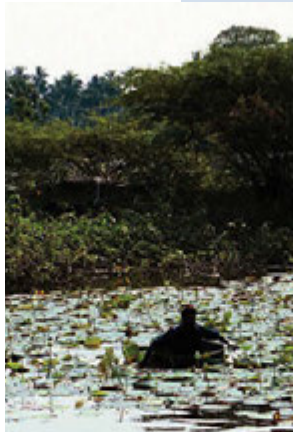
- The lotus geologic record dates from 135 million years ago
- Lotus plant cultivation dates from 4,000 years ago
- Found in Asia, both temperate and tropical regions, Australasia and Europe, where the flowers grow in ponds, especially at monsoon season
- Easily naturalized under beneficial conditions

Cultivation:

- Hand picked from “managed” ponds
- Renewable resource
- Season is year round, but high production is February-April
- Products: absolute, concrete and wax
- Current annual production: 150 kg concrete and 30 kg absolute
- Current client usage is for perfume

Sensory experience:

- Coconut trees rise and fringe above rice fields with marginal ponds cheek to jowl with open lotus blooms; frangipani trees in bloom; peacocks and elephants attended by their keepers; endless processions of saffron robed pilgrims; wafts of temple incense calling devotees to prayer; temple drummers and dancers with necklaces of tuberose, jasmine and rose; singing to the Goddess Lakshmi praying for love, health and wealth





Lotus ponds, used for rice paddy irrigation and water management, range in size from marginal puddles to lakes.



The experienced lotus collector, plucking flowers and leaves manually, completes harvests in under 3 h, an effort that yields ~150 kg of flowers and leaves.

Kerala, and then drove 2 h to Kanyakumari, crossing back into Tamil Nadu. “The Land of Temples” perfectly captures the spirit of Tamil Nadu. Kanyakumari is located at the heart of pink and white lotus land. This plant is India’s most holy flower, sacred to the Goddesses Lakshmi and Surawesti. In this land closed lotus buds dipped in scented water anoint and bless devotees. In respect and hopes of bountiful blessings, many will name their daughters Lakshmi.

On my first full day we departed the



The Thovalam wholesale flower market: from here, lotus flowers enter the retail market.

city of Kanyakumari for the surrounding rural areas to see the lotus flower harvest and then the wholesale flower market in Thovalam. Lotus flower and leaf (the latter used as “ecologically sensible” disposable dinner plates) collections take place from 5:00 AM to 7:00 AM, at which point the biomass ships to the wholesale flower markets.

We toured and inspected a series of lotus ponds (used for rice paddy irrigation and water management), ranging in size from marginal puddles to lakes. The lotus flowers, both white and pink varieties, are exuberant displays of color and form. The pink-flushed flowers are not demure in their beauty. The seemingly thousands of petals will last only two days upon blooming, eventually falling into the water and leaving behind cone-shaped seed heads full of edible seeds. Remarkably, the seeds themselves are viable up to 1,000 years. Human sensuality, sexuality, longevity and immortal life are obvious symbols.

Admiring the lotus flowers I saw a man with a small steel tub, paddling the water with his hands, spinning, whirling and navigating the dense pond foliage. The experienced lotus collector, plucking flowers and leaves manually, completes harvests in under 3 h, an effort that yields ~150 kg of flowers and leaves. After collection, the biomass heads for the wholesale flower market, which my hosts and I visited. This process of harvest and sale is rapid: by 11:00 AM the Thovalam wholesale flower market closes, by which time the flowers have entered the retail market.

We walked along a winding tiny alleyway into a sun-washed open plaza, where the market was under way. Stuffed burlap sacks filled with seasonal flowers of deep jewel tones surrounded us, and the smell permeated the air. The bargaining was intense and animated, as agents and brokers inspected goods and made trades while the bookkeeper recorded transactions. I noted the lotus flower vendors and visually counted the stuffed bags. Reflecting market demands, I saw more sacks of pink than white flowers.

Near the marketplace we met with a lotus flower



This lotus broker shows the product and makes a deal.



Purchased lotus flowers are open for inspection.



Preparing lotus flowers for the extraction process.

producer and broker and made a trade. The biomass proceeded by truck to arrive 12 h later, and 24 h before my arrival at Jasmine Concrete Exports' Coimbatore factory. Lotus flowers can tolerate up to two days post harvest before processing is necessary. Since May 2003, Jasmine Concrete Exports has operated its factory in Mudrai, 300 kilometers from Kanyakumari, allowing same-day lotus flower collection, delivery and processing.

The trade was made, but I was not content to look at the lotus-stuffed sacks. The scent was too mesmerizing, and I was just too curious. I buried my head into one sweetly scented sack, and physically inspected the flowers' condition. The flowers



Lotus flowers in the extractor.



An open lotus flower.



The author holding pink lotus concrete: the material is glossy dark reddish-brown, viscous and slightly resinous.

need to be open and not bruised to manufacture the premier quality concrete and absolute. I congratulated the producer on his harvesting expertise and his intimate and vast knowledge of "lotus flower and pond economics."

Lotus flower processing was already proceeding when we arrived at the Coimbatore facility the next morning. A group of workers skillfully prepared the flowers for extraction. Climbing the factory scaffolding, I ascended into a scented cloud: sweet-floral, peony-like, possessing elements both ethereal and earthy, with resinous and medicinal twinges. As drink, I imbibe the fragrance! It is deep and lasting on my palate.

I taste a liquor never brewed
From Tankards scooped in Pearl.
Not all the vats upon the Rhine
Yield such an alcohol!

— Emily Dickinson

The lotus flower fragrance perfectly reflects its botanical form. The medium is the message. The flower rises pristine from earth's mud and offers a fragrance of heavenly bliss.

Well after nightfall, 6 h after inspecting the extractor loading, I was presented with a metal container portion of the pink lotus flower concrete, still warm from its extraction. The color was glossy dark reddish-brown and the texture viscous and slightly resinous. I inspected the earlier-extracted lotus flower wax, which was mossy green and exuded a lotus leaf scent: muddy, wet, slightly sweet and green.

I departed India the following day for Sri Lanka, where I saw more lotus ponds and ritual use of lotus flowers. Six months later I visited Thailand where, at a Buddhist temple, I was anointed on the head with a dripping wet lotus bud. I know a part of me will forever remain in Tamil Nadu, "Land of the Lotus and Temples."

Around me every day I see lotus motifs and allusions in popular culture, crafted items, fine art and literature. We should not be surprised by the lotus flower's depth of reach into the human imagination, heart, body and spirit. A thousand years of mankind's culture is intimately intertwined with the lotus flower and its symbolism. The pink lotus absolute embodies profound botanical and human history.

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