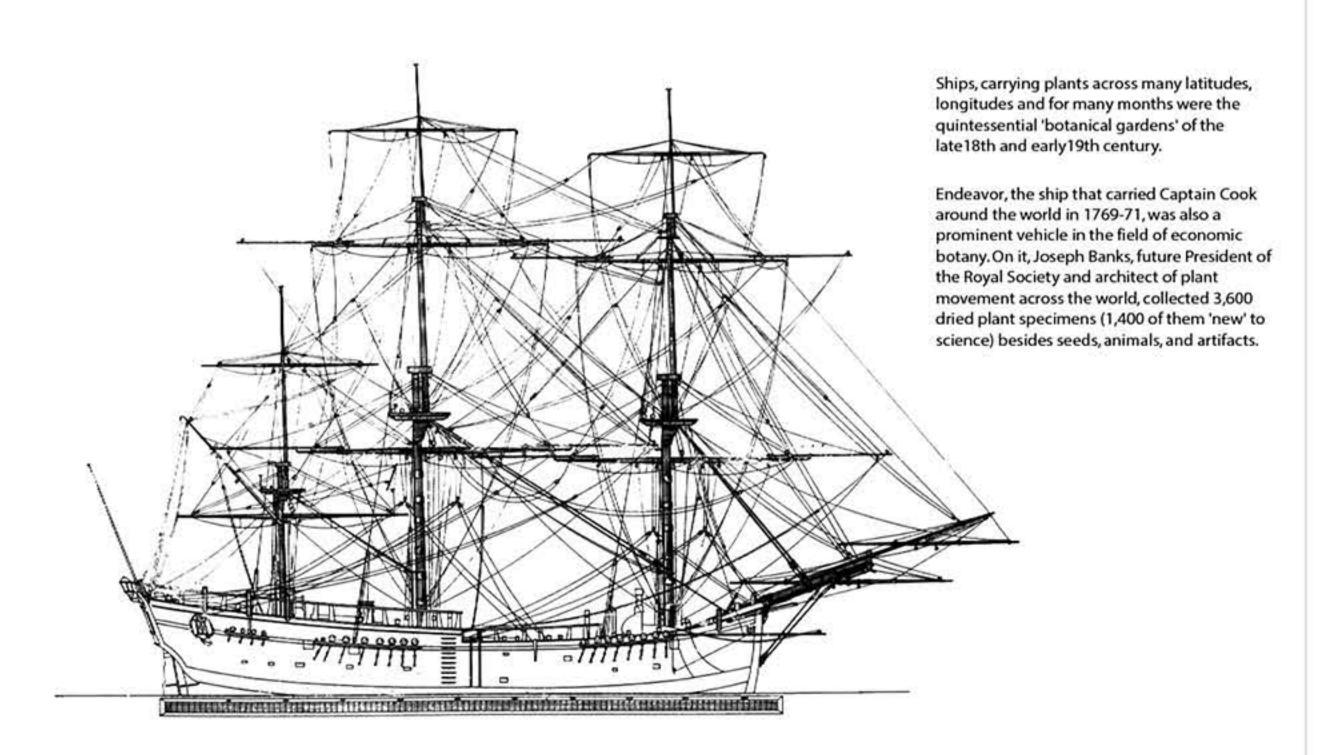
BOTANIZING

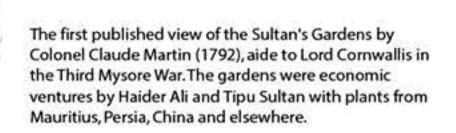
In 1799 Governor General Wellesley ordered Benjamin Heyne, a medical officer in the East India Company, to appropriate "the Sultan's garden at Bangalore . . . as a botanical garden" and develop it "as a depository for useful plants sent from different parts of the country.... A decided superiority must be given to useful plants, over those which are merely recommended by their rarity or their beauty."

Heyne was an enthusiastic member of a global network of 'naturalists' collecting and classifying plants. But he was also part of an enterprise concerned for their cultivation, transplantation and use for 'social benefit' and 'profit'. This field of economic botany appealed to the East India Company.

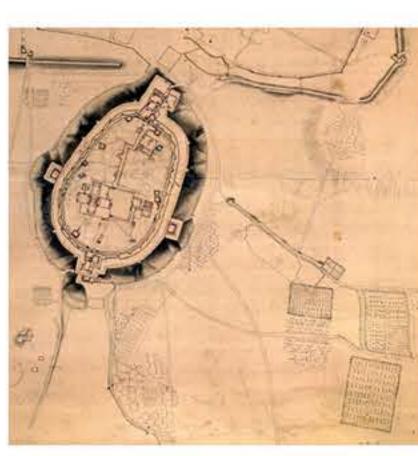




The Royal Gardens at Kew was made by Joseph Banks and King George III ("Farmer George") into the center of Economic Botany, a field of plants and transplants for 'social benefit' and 'profit'.







A 1791 map of Bangalore showing what Francis Buchanan in 1800 called the "gardens of the late Mussulman princes" to the east of the fort. Tipu Sultan's garden was distinct from Hyder Ali's. "The taste of Hyder accorded more with the English than that of his son. His walks are wider, his cypress trees are not so much crowded; and in the means for watering the plots there is not so much masonry, or bricklayer's work employed. There is, indeed, so much of these in the parts of Tipoo's garden ... as almost to cover the ground, and to leave nothing but holes, as it were, through which the trees grow."



An 1832 map of Bangalore depicting the gardens to the east of the fort by their modern name "Laulbaug."

In 1802 the Company appointed Heyne full-time superintendent of the 'Company Garden' at Bangalore. He introduced plants but he also provided food for regimental messes while demonstrating to 'natives' the cultivation of "European vegetables." In 1807, failing the Company's ambitions for economic returns the garden was given up to the Mysore Government who put it in the hands of Major Gilbert Waugh, Paymaster of Mysore. In 1819 he offered it back to the Company "with a view to its becoming a source of supply to British India for many of the fruits etc. of England, China & other Countries, together with most of the varieties of Asia which have been introduced with much care and unlimited expense." But four months after accepting Waugh's garden, Governor General Hastings withdrew his offer.

The garden thereafter remained with Mysore acquiring the name Lalbagh. Its global connections would continue to extend together with its transformative influence on cuisines, economies, and landscapes of the Mysore tableland, most significantly its immediate environs. Once a naked country, these environs would become the Garden City.

BANGALORE 4

LALBAGH THROUGH A CENTURY

TOTA

Prior to 1760s - probably a yellay tota, that is, a betel nut and betel vine plantation

SULTAN'S GARDEN

1760s - Hyder Ali's Garden to which in the 1780s Tipu Sultan adjoined his own Garden. The "gardens of the Mussulman princes," writes Francis Buchanan in 1800, "are extensive, and divided into square plots separated by walks, the sides of which are ornamented with fine cypress trees. The plots are

filled with fruit trees, and pot-herbs."

BOTANICAL GARDEN

COMPANY GARDEN

1800 - Made a 'depot for the plants of the country' and a 'botanical garden' by the order of Governor General Richard Wellesley. Also made a Company Garden by the order of Madras Governor Robert Clive. Both were under the superintendence of Dr. Benjamin Heyne. "The first object when allowed to reside at Bangalore in order to superintend the Garden was the introduction of potatoes, turnips and other useful vegetables.... I am confident that the confirmation of my first ideas of being able in a few years to supply the Madras Market is not far distant." In Heyne's plan the Garden comprised three departments -- the botanical, the practical, and the economical. The botanical department was divided for annuals and biennials and further subdivided for water and swamp plants, plants growing in stony and sandy soil, and plants from other parts of the world "chiefly intended for exhibiting the characteristics of the vegetable kingdom in the parts of the globe they are to represent." The practical department "is to contain in different divisions all plants used in medicines and in the different arts for example dyeing and manufacturing cloth, joinery, tanning." The economical department "comprehends in different divisions whatever is used for food, an orchard with all culinary vegetables of this country and other produce of nurseries for useful plants to be distributed for general introduction as of coffee, vines, spices, and fruit trees." The principal divisions were to be "distinguished by the breadth of the walks and a row of handsome trees as the Cypresses on both sides," and subdivisions were to be "enclosed by evergreen hedges not so high as to prevent the circulation of the air, the walks between them to be only half as broad as the principal ones."

WAUGH'S GARDEN

1808 - The Garden was given up by the Company to the Mysore Rajah who placed it in the hands of Major Gilbert Waugh, an officer of the Madras European Regiment and Paymaster of Mysore. Waugh "devoted a considerable portion of his time attention and fortune to the liberal and useful pursuit of enriching this country with the most valuable productions of Europe and China, many of which after several unsuccessful endeavors and much fruitless expense during the last fifteen years, have ... been brought to perfection in the congenial climate and soil of Bangaloor." To him, notes Alexander Cole, Resident of Mysore, the "country is indebted for a considerable variety of valuable exotics."

1819 - Offered to the Company by Waugh and recommended for acceptance by Nathaniel Wallich, Superintendent of the Botanical Garden at Calcutta, as an "intermediate depot" for introducing European plants to the "the excessive heat and profuse wetness" of Bengal. The garden he says would "prove highly advantageous to the successful pursuit of horticulture in India." Accepted by Governor General Hastings but rejected four months later. It was probably returned to the Rajah by Waugh.

1831 - Transferred to the Commissioner as 'Lalbagh' when the Rajah was relieved of his powers by the Company.

SUBSCRIPTION GARDEN

1836 - Given by Commissioner Mark Cubbon to the Bangalore branch of an amateur organization begun in Calcutta in 1820, the Agricultural-Horticultural Society of India. In the hands of this organization, "Most of the approved European vegetables were brought into general cultivation, and several exotic fruit trees were successfully introduced, and the finer varieties propagated. Gardening among the Mysoreans received a considerable impulse, as shown in the increased quantity and improved quality of European fruits and vegetables procurable in the bazaars."

1842 - Returned to the Commissioner when the Agri-horticultural Society closed down.

INTERMEDIARY GARDEN

1856 - Chosen by Dr. Hugh Cleghorn, Botanical Advisor to the Government of Madras as 'Intermediary Garden' between Madras and Ootacamund. "The difference of temperature between the Neilgherry Hills and the Carnatic plains is so great that I fear many valuable plants acclimatized in the former, would not succeed if at once transplanted into the latter, and I would therefore suggest that Government should propose to the Commissioner of Mysore, the establishment of a Garden under skilled Superintendence at Bangalore." Bangalore, Cleghorn was convinced, "is much better suited for agricultural and horticultural experiments than either Ootacamund or Madras; and, from its central position and intermediate elevation, the finer kinds of vegetables and better sorts of graft trees may be disseminated with great success."

GOVERNMENT GARDEN
PUBLIC GARDEN

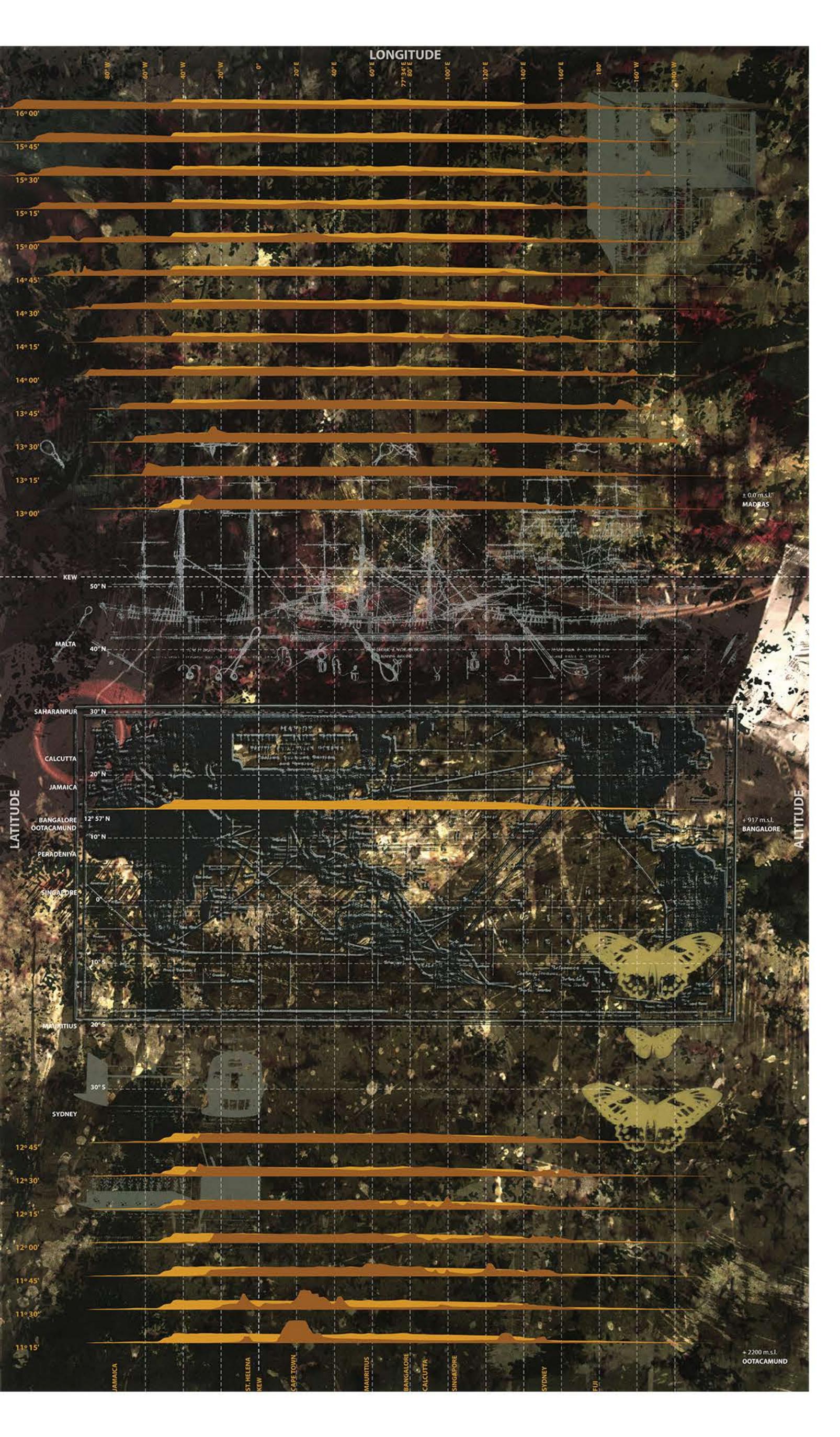
1857 - Made a Government Garden and a Public Garden under the supervision of economic botanists trained until recently at the Royal Gardens at Kew, London.

"It occurred to me," writes Dr. M.H. Marigowda, superintendent of the garden in the 1950s and 60s, "that if the East India Company could make use of Lalbagh to develop Great Britain, why should we not make use of Lalbagh to develop every family in every village in the state? Literally, 'I let go Lalbagh to every village in Karnataka'."

'FIRST' GARDEN



Lalbagh, which former President Venkataraman described as the "pendant in the necklace of Bangalore parks," has been a powerful agent in making the Garden City with its program of introducing, acclimatizing and disseminating plants.

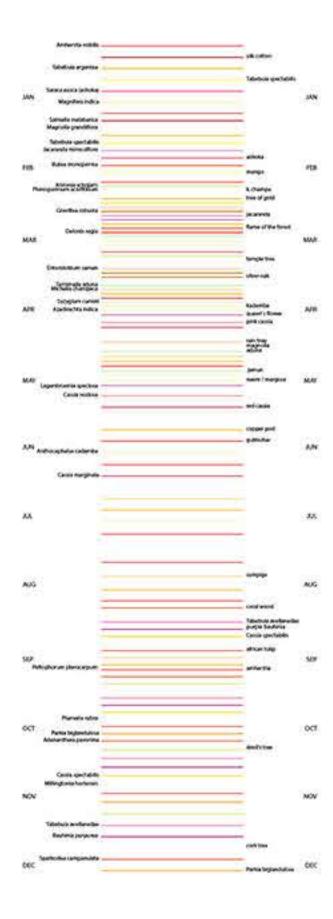


GARDEN CITY

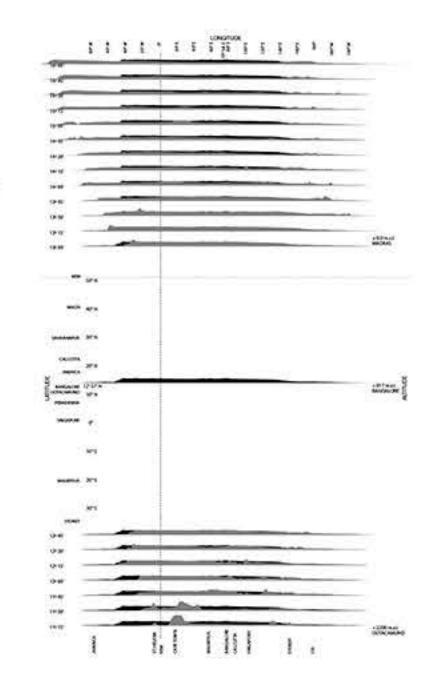
The ground of Bangalore was tested by Cornwallis' men when they camped here in 1791-92. "The soil is fruitful," writes Lt. Roderick Mackenzie, "cabbages, lettuce, and other European culinary wares, planted by British officers, throve in the gardens all around without any extraordinary attention." This fertility was exploited in the 19th century with exotic plants disseminated from the Company Garden. When Hugh Cleghorn was asked in 1856 to identify a place in Bangalore that would serve as an intermediary garden between Madras and Ootacamund for acclimatizing plants to the subcontinent Lalbagh was not an obvious choice. "Several localities were examined and it was ultimately agreed that the Lal Bagh (formerly selected by Hyder for a garden) was, on the whole, the most eligible spot for the purpose."

The 'acclimatizing triangle' of temperate Bangalore, alpine Ooty and tropical Madras translated latitudes of the world into altitudes of the peninsula. It was maintained by economic botanists from Kew. They drew local inhabitants to the gardens and to horticulture even as they reached out to cultivate the tableland with nurseries, plantations, parks, railway corridors, avenues, traffic islands, even towns. Gustav Krumbiegal who took over Lalbagh in 1908, declared that "finer skills and more developed ideals" set horticulture apart from agriculture but they also took it beyond use and commerce toward the refined art of "Landscape Gardening", from where it is a "natural step to Town planning." With this step Bangalore received not only plants but planned initiatives, notably, 'extensions' where layouts were dictated by "open spaces, avenues, and boulevards" as "natural adjuncts to Landscape Gardening."

Eventually the city itself was seen as a garden enclosed by a greenbelt and organized by "open spaces, avenues, and boulevards." Lalbagh, Bangalore's first garden, had cultivated the Garden City.



Lalbagh was a generator of not only plants but design initiatives such as 'charbaghs' that describe many neighborhood parks and Krumbiegel's serial blossoming whereby at least one tree on each road is in bloom at any time of the year.



In the 1800s, altitude in the peninsula was a substitute for latitude — moving plants down was equivalent to moving them to lower latitudes. In 1819 Nathaniel Wallich suggested that the Gardens at Bangalore be made into an "intermediate depot" for introducing European plants to the "the excessive heat and profuse wetness" of Bengal. In 1856 Hugh Cleghorn recommended that it be an 'Intermediary Garden' between Madras and Ootacamund. "From its central position and intermediate elevation," noted Hugh Cleghorn, "the finer kinds of vegetables and better sorts of graft trees may be disseminated with great success."



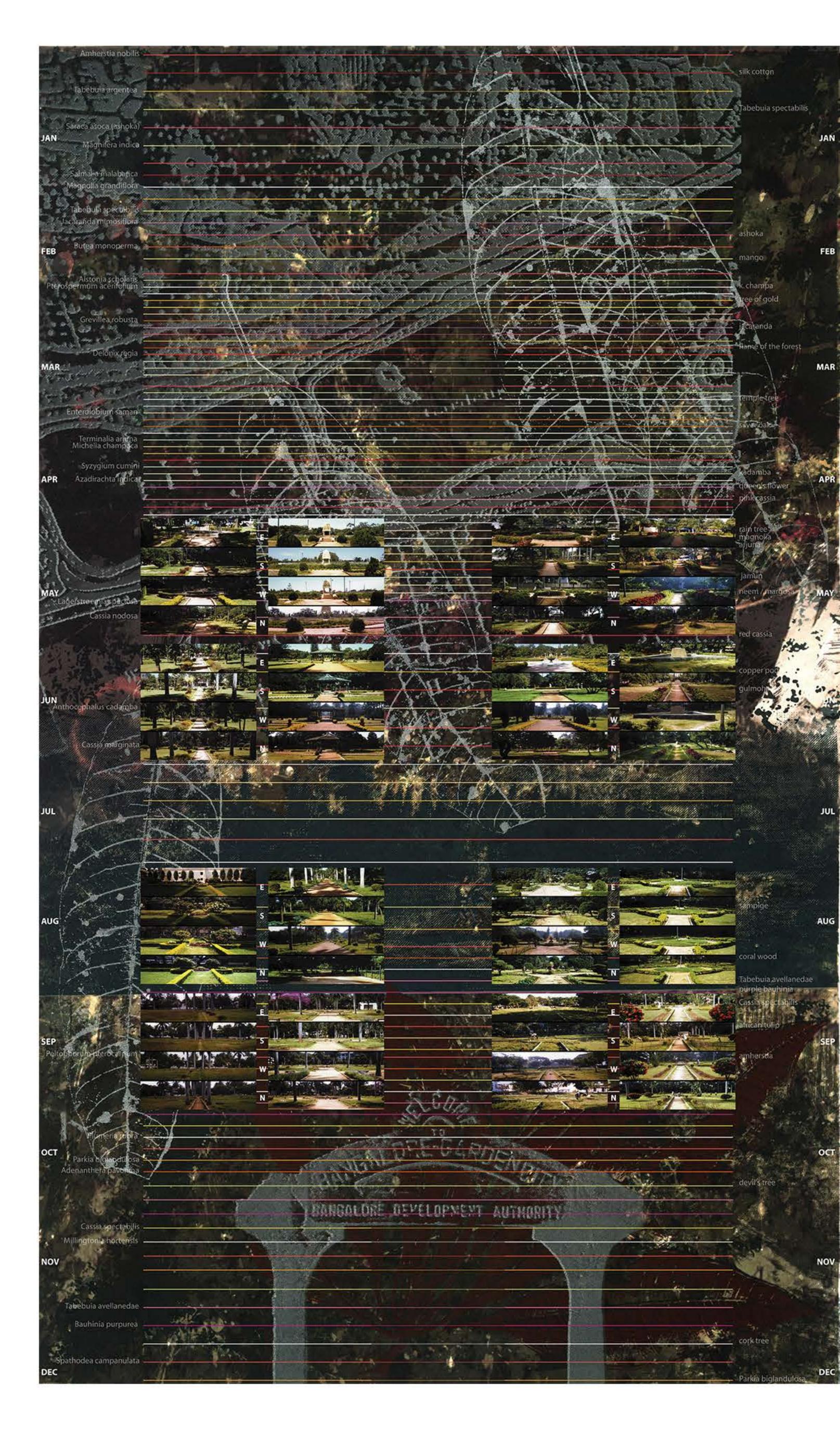
Detail of James Hunter's 1791 painting of the Sultan's Gardens which he called "Cypress Garden." By 1874 this garden called Lalbagh, was being hailed as "the Kew of India," by Edward Lear. "Never saw a more beautiful place, terraces, trellises, etc., not to speak of some wild beasts. Flowers exquisite."

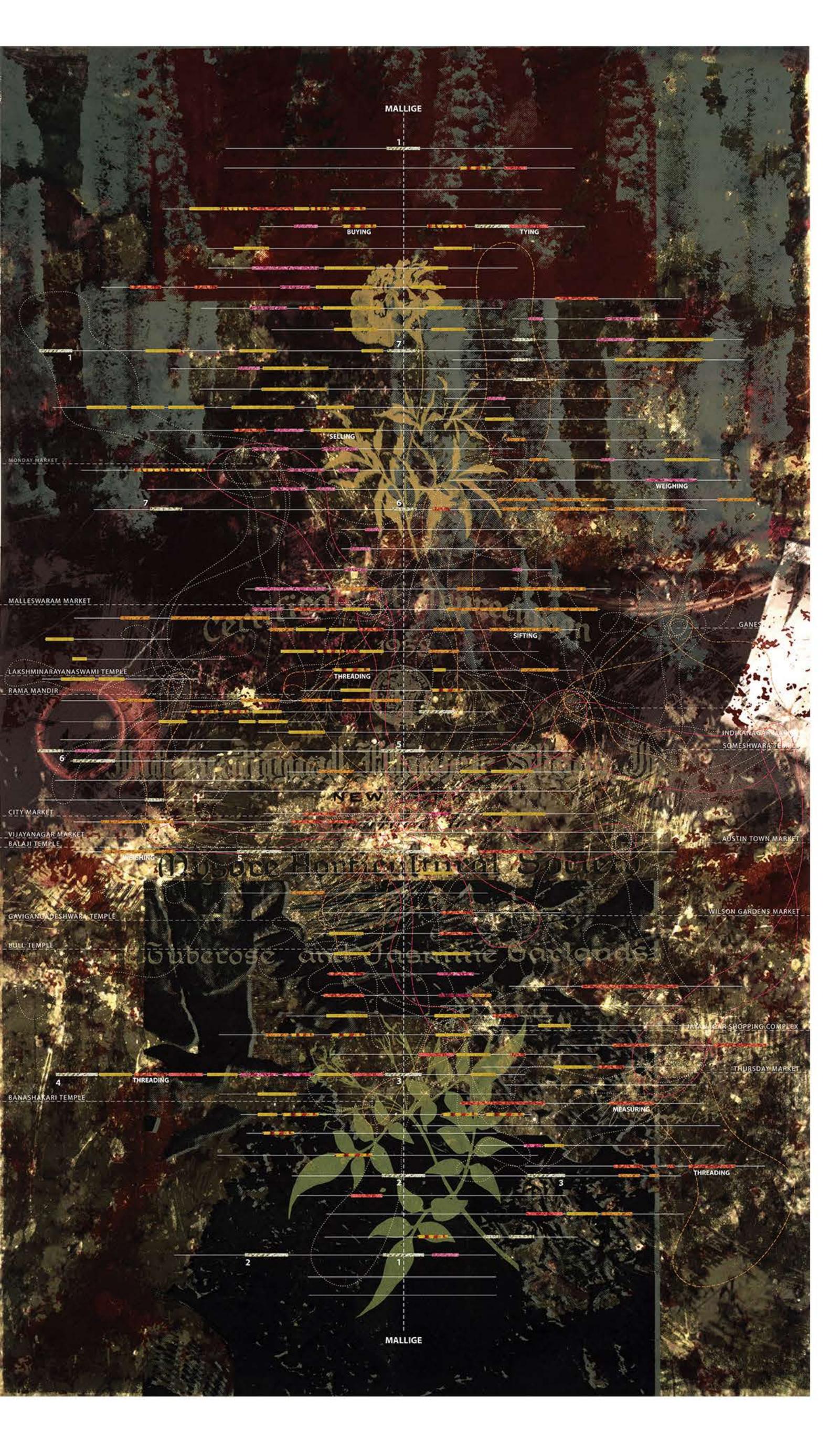
The 'Rain Tree' (Samanea saman), a popular avenue tree closely associated with the image of the Garden City was introduced from Jamaica via Ceylon in the 1870s.





The Agri-Horticultural Society was given Lalbagh in 1836 by Mark Cubbon, Commissioner of Mysore. This organization continued introducing and disseminating plants and technologies but it also sought to interest Bangaloreans in horticulture through flower shows, garden competitions and membership. It was a first step in cultivating the Garden City.



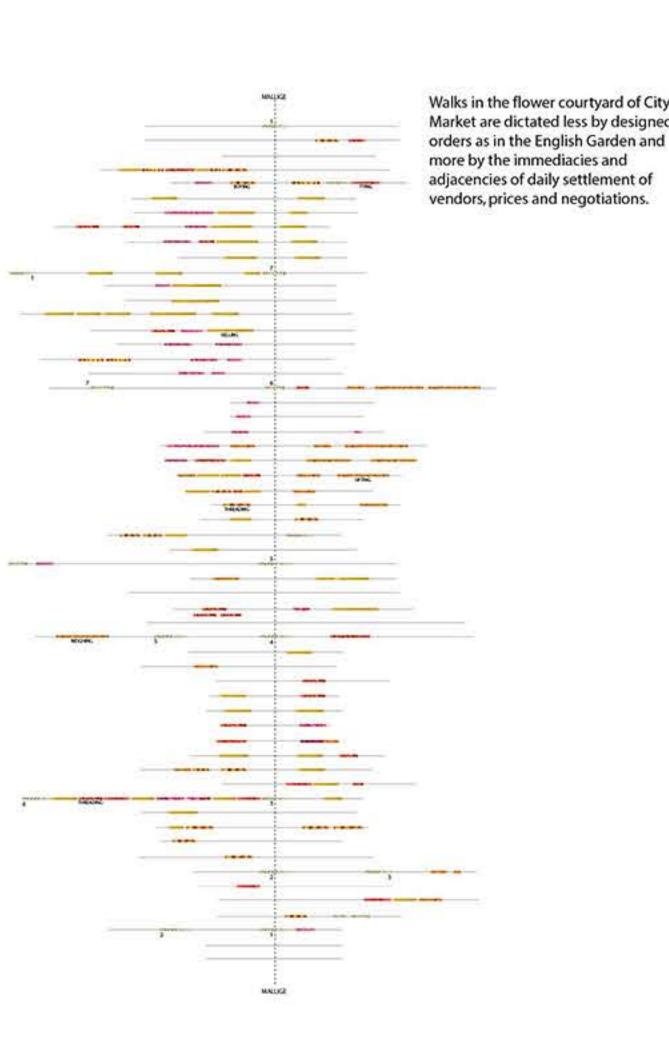


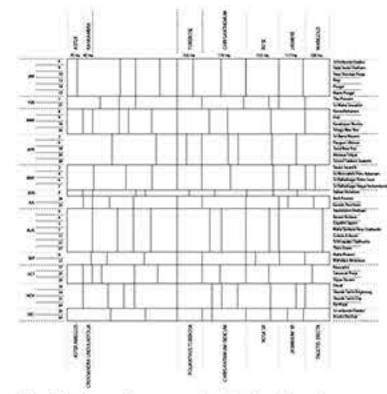
TOTA

In 1800 Francis Buchanan identified three cultivated "grounds" on the Mysore tableland: tota, wet land, and dry field. Wet land (irrigated) and dry field (dependent on rains) he describes as 'open' and planted with crops and grains. Tota, a word which he translates as garden, was by contrast 'enclosed' and of four kinds: kitchen garden (tarkari tota) for vegetables, coconut garden (tayngana tota) which included other fruit trees, betel-leaf garden (yellay tota), and flower garden (huvina tota).

The "gardens made by the late Mussulman princes" which he visited in Bangalore however, do not appear to fit any of these categories. They are, he notes, "extensive, and divided into square plots separated by walks." There was an experimental aspect to them with 'trials' of mulberry (from China) but also custard apples, apples, peaches, varieties of rice, wheat, sorghum, beans, roses, and so on. This was evidently not an ordinary garden but a tota of totas, a dry field of dry fields, and a wet land of wet lands.

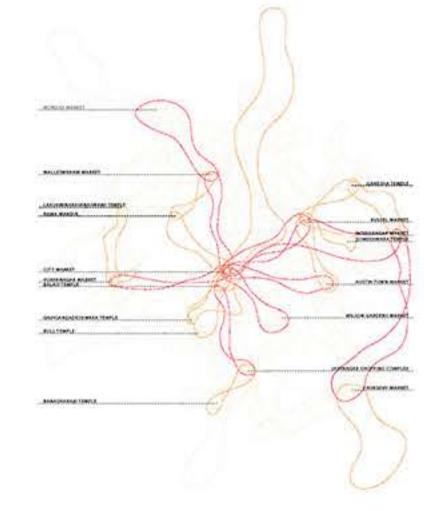
While the extraordinary garden at Bangalore, called Lalbagh today, remains a place to connect with the cultivated grounds of the tableland, a more common threshold is the market, a world of merchants and merchandise. A hub of this world is a kilometer west of Lalbagh, the City Market. Produce comes here from cultivated grounds at distances modulated by concerns for freshness as much as by tariffs, borders, seasons, mishaps and disasters. And from here it disperses to other markets and consumers whose needs are ordered by everyday rituals, auspicious events, and unforeseen conditions.





"The Huvina, or flower gardens," writes Francis
Buchanan in 1800, "are cultivated near towns and
populous places which afford a market for their
produce." Produced by the hectare and sold by the
kilogram, the flowers of the huvina tota are less about
being seen and appreciated and more about occasions,
felicitations and rituals.

Threaded into strings, flowers from huvina totas have a 'second life' in the city as they make their way to smaller markets, temples and homes or move around the city in women's hair and on deities in vehicles. They are a fleeting presence in contrast to the fixity and sequential rhythms of 'blossoms' in gardens and on avenues.





Folklore has it that Lalbagh was once a Yellay Tota - a betel nut and betel vine plantation. Translated as garden, tota differs from the pleasure garden in that it is designed to produce goods for a market rather than leisure. It is a working landscape.

The Jasmine or Mallige, a popular fragrant flower that adorns women's hair and deities appeared in William Curtis' The Botanical Magazine or Flower-Garden Displayed of 1793 as a flower native to India.





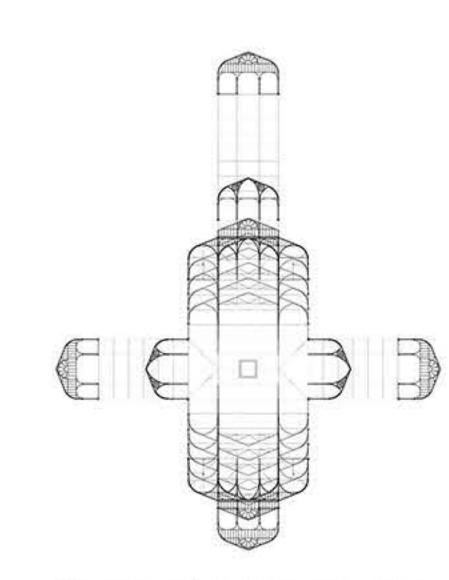


GLASS HOUSE

The Great Exhibition in London in 1851 featured over a hundred thousand exhibits. "Every possible invention and appliance for the service of man found a place within its embracing limits; every realization of human genius, every effort of human industry might be contemplated therein."

The idea of the exhibition was to encourage competition, to get "the best and the cheapest." The structure that housed the exhibition - the Crystal Palace - however stood alone. This "House of Glass," John Tallis wrote at the time, "will exist in the annals of history, long after the vaunted pyramids of Egypt ... shall have crumbled to dust." This 18-acre enclosure was designed by Joseph Paxton, an economic botanist who had built a number of plant conservatories to shelter tropical plants in Britain. His building was the showpiece of the exhibition, heralding an age of 'open' competition. "As in a crystal there is no longer any true interior or exterior. The barrier erected between us and the landscape is almost ethereal. .. We find ourselves within a cut-out segment of atmosphere."

In 1889, a crystal over fifteen times smaller than Paxton's creation came to Lalbagh from England. It was to house the summer and winter 'Lalbagh Shows,' a tradition since 1836. The idea of the show was to demonstrate new plants and technologies and to encourage the 'improvement of stock' through 'intelligent competition.' It fitted the progressive spirit of the Crystal Palace.



Paxton's design of the Crystal Palace was inspired by the giant water lily (Victoria amazonica) 'discovered' in Brazil in 1801, in particular the web-like cantilevers emerging from the stem of this plant to support the 2-meter diameter leaf. It maximized the surface of glass and minimized the iron work, leading one commentator in 1851 to remark that in the Crystal Palace "all materiality merges into atmosphere." Four decades later the Glass House in Lalbagh followed this innovation.

The flower shows began in 1836 when Lalbagh was in the hands of the Agri-Horticultural Society of India. The object of the shows then was to raise money and interest in horticulture, demonstrate new plants and technologies to local inhabitants, and encourage 'intelligent competition.'



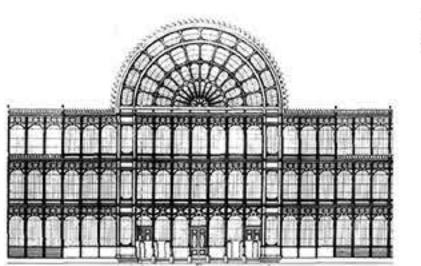


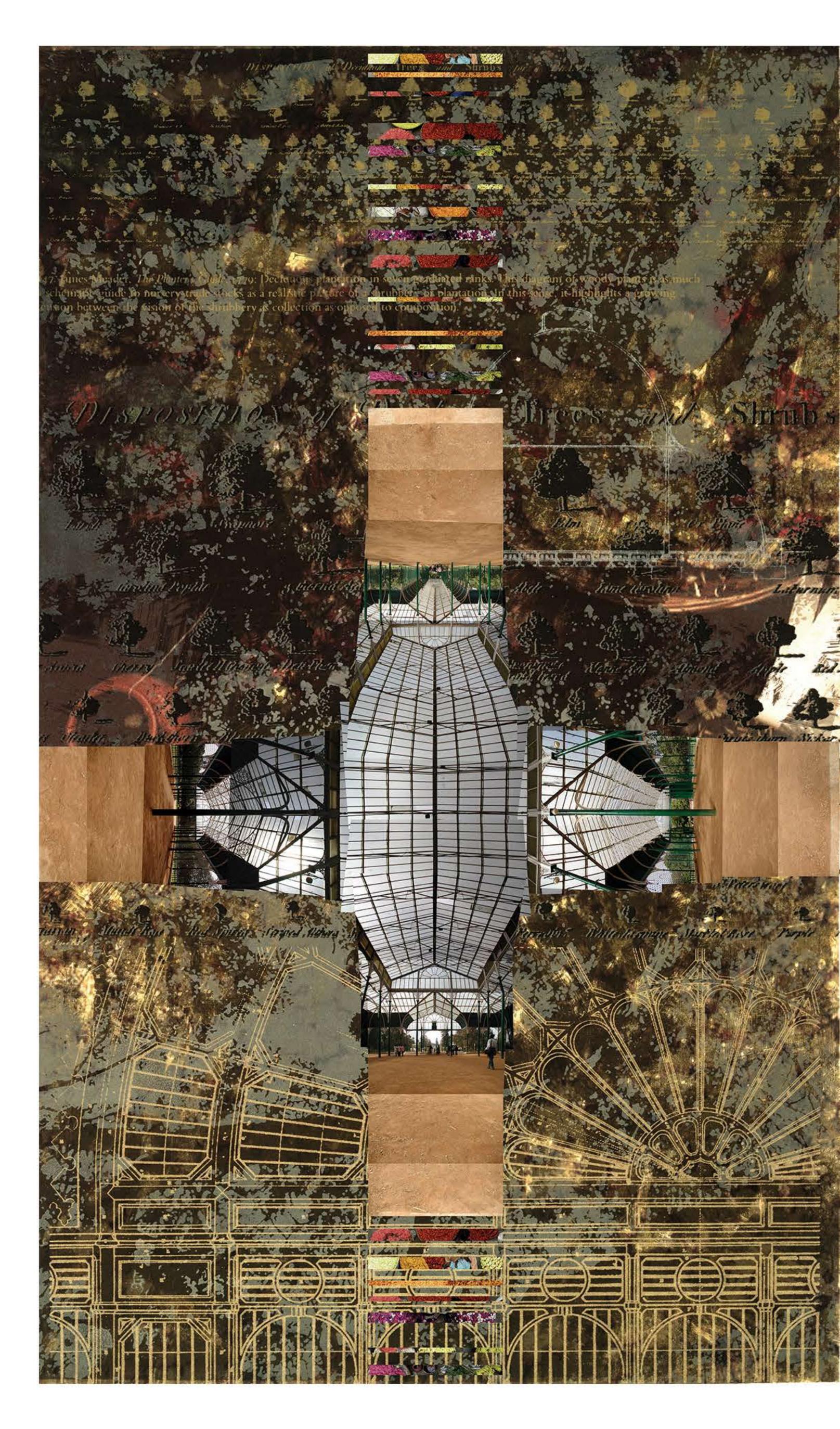


The Crystal Palace was 1,851 long and 450 feet wide. Its height of 108 feet took in some of the elm trees of Hyde Park.

The Exhibition, declared Prince Albert, is "to give us a true test and a living picture of the point of development at which the whole of mankind has arrived ... and a new starting-point from which all nations will be able to direct their further exertions."

Following the exhibition, the Crystal Palace was moved south of London to Sydenham Hill where it was used for concerts, horticultural shows, games, photographic exhibitions, demonstrations and science fairs. As architect Gottfried Semper had noted in 1851 — "This glass-covered vacuum will suit anything one wishes to bring into it. .. This building is to a certain extent the embodiment of the tendency toward which our age seems to be moving."





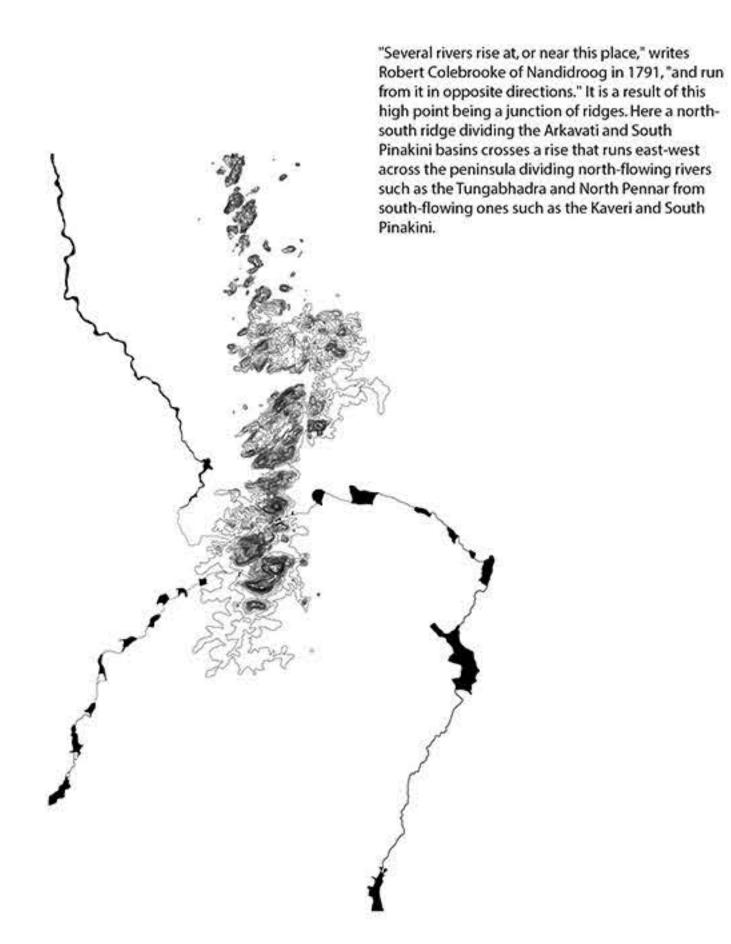
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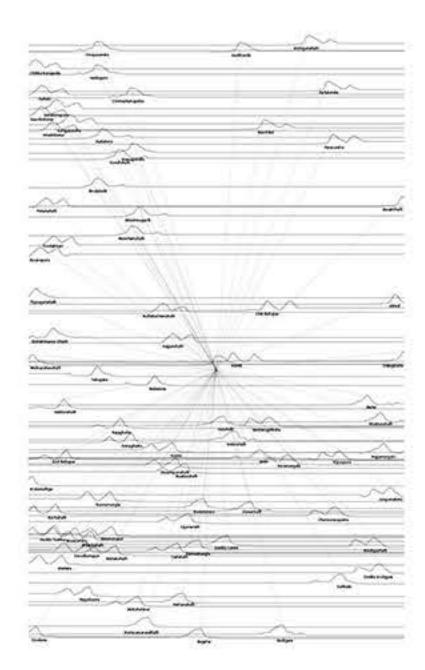
HILL STATION

The surfaces gathered by the Arkavati and the South Pinakini or South Pennar meet along what Lewis Rice in 1877 calls a "line" that runs "along the highest part of the ridge of land" through Bangalore. Its extension south and east reaches the coast between the Kaveri and Ponnaiyar watersheds; its extension north culminates in Nandidroog, a fortified hill of rock that resisted Cornwallis' army in 1791. "The plain on which it stands," writes Robert Colebrook at the time, "is supposed to be the highest in the Peninsula of India, and the summit of the hill the most elevated point."

If ascending the passes from the Carnatic was to approach the eastern shores of the Mediterranean (the Levant) as Cornwallis' men described their arrival onto the Mysore tableland, ascending Nandi was to continue further into the temperate latitudes. "The climate upon this hill during the day is truly European," writes Colonel Welsh in 1809. For men like Colonel Cuppage it made the summit an ideal ground for plant introductions from Europe. Here he he made what Welsh describes as "a beautiful garden ... the trees of which, still standing, are watered with dew and misty clouds, which are continually passing over the hill. Amongst them we found an enormous peach, a few plum, and several flourishing Seville orange trees; all three being rarities in the East Indies."

Portrayed by artists in 1791 as largely barren, a century later Nandidroog was teeming with "luxuriant vegetation." The seeds sown by Cuppage would grow into more than a garden of European exotics; it would grow into a "little sanitarium" which "in the warm season, when vegetation is nearly dormant on the plains ... is verdant and refreshing."

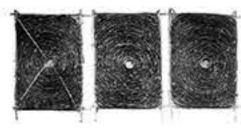




Nandi Hills has long been a sacred source of water that disperses from it in all directions. It makes this range an omnipresence on the tableland, one that is reinforced visually on the vast undulating surface that surrounds it.

Surveyor Alexander Allan's 1791 drawing of "Nundy-Droog."





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Cocoon mats and fields of mulberry reveal a sericulture

A 1790s surveyor's drawing of Nandidroog and the hills

industry intrinsic to the surface around Nandi.



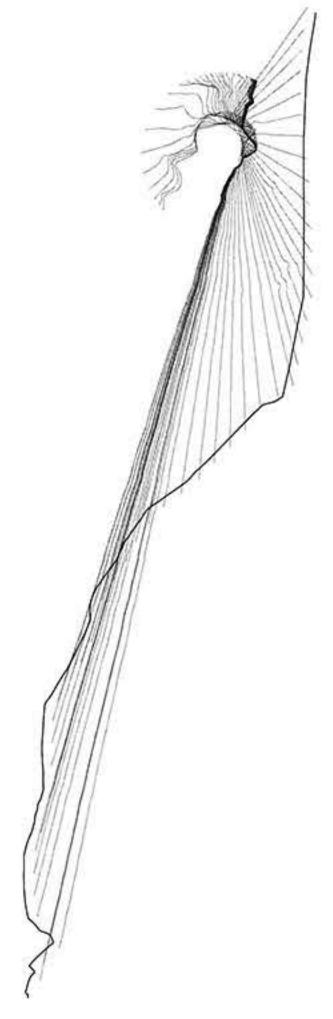


AIR

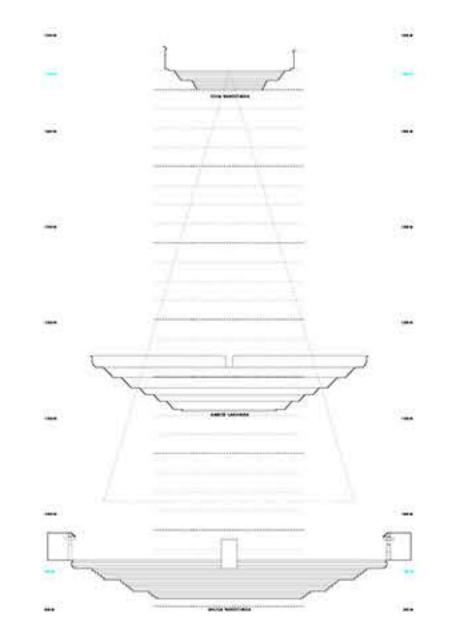
Through the second half of the 19th century the acclimatizing 'triangle' of Ootacamund, Bangalore and Madras orchestrated by Hugh Cleghorn in 1856 was finetuned by 'intermediate gardens'. When John Cameron, Superintendent of Lalbagh, was asked in 1890 to propose "an experimental garden at Nundydroog," he suggested a "gradation system working from top to bottom, the selection of sites at intervals of varying elevation is exactly what would be required. Plants from cooler climates would thus be gradually inured to the uniform heat of the surrounding plains." He saw it as an 'acclimatizing gradient' across 15°F and 500 meters of altitude and a point from where to desseminate plants.

Dispersing material across the tableland was not new to this small range of hills. Water flowing off them fan out to a range of destinations along the east coast, from the mouth of the North Pennar to the Kaveri. It presents a surface of folds that disperses along tributaries as one moves inland and onto higher ground. But as divergent as these folds are, they mysteriously gather in Nandi Hills.

This gathering of the surface of the tableland is celebrated at Nandi between the Yoganandisvara and Bhoganandisvara temples. The former, on the summit points toward the other side of a material source, the detachment aspired to by the ascetic. The latter, in the 'plains' northeast of the hill, celebrates the fulfillment of the material source in the harvest each year. Between detachment and enjoyment is a surface that since Cameron represents the potential of economic botany on the tableland.



In 1791 the English were convinced that "Nundydroog was fixed on as the pillar to which the Sultaun's chain for supporting his ambitious projects against the north, must have been fastened." Only a century later the hill anchored the network of economic botany begun from Lalbagh spreading across the tableland.



Two lines originate on Nandi. The first is a line joining the Yoganandisvara and Bhoganandisvara temples; a line connecting earth and sky. The second is a ridge that divides two of the many rivers that begin on these hills "and run from it in opposite directions," the North and South Pennar/Pinakini. The first indication of the waters of these rivers is the collections behind the bunds of Srinivas Sagar and Khandvara Kere, two tanks lying "in opposite directions" of the Nandi range. Together they water a country that Roderick Mackenzie in 1791 said "is fertile, well cultivated, and full of villages; ... a plentiful neighbourhood."

The tanks of Bhoganandisvara Temple at the foot of Nandi Hill and Yoganandisvara Temple on its summit.





Robert H. Colebrook's 1791 drawing of "Nandydroog."
To be "stationed at Nandidroog pleased us all as it was a retired, quiet and cool station," writes Major H. Bevan. It was different for the natives. "The servants," writes Mrs. Bowring, "object to the durg entirely, owing to the cold, so there was a general distribution of blankets and coats, but they sit curled up, looking like martyrs, and shiver with great effect whenever I look at them."



