Folk Uses of Plants for Adornment in India

K. L. MEHRA¹, K. C. KANODIA¹, AND R. N. SRIVASTAVA²

"At what times and from what direction do seeds, flowers, and tree enter the religions, the myths, the inscriptions, and the artistic legacies of various cultures?" (2).

Man has been fascinated by nature since he evolved from his primitive ancestor. To start with, he may have obtained his food mainly by killing wild animals, but it was only on plants that he could depend with confidence. It was not so much because many plants gave him food but because they could be put to a wide variety of other usages that man developed a very close relationship with plants around him. Though we really have no idea regarding the temporal sequence of origin of different groups of plants, Burkill (3) proposed that the sequence had been cereals, then pulses, short-lived greens, and oil-seeds, followed by root crops, herbaceous fruits, fibre and dry plants, woody plants, industrial plants, etc. Primitive peoples in various parts of the world, however, use plants for body paints, adornment, living stockades to protect themselves from each other and from wild animals, poisons, chewing, stimulants, medicines, and ritual purposes. This led Anderson (1, 2) to believe that perhaps man's earliest domesticates were non-food plants. He emphasized the need to study man's attitude towards ornamental plants for a better understanding of the stages involved in crop plant domestication.

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In India, an ancient centre of civilization, plants have been adored, fondled, and almost treated as family members. To the aborigines of India, trees mean a good deal — the words for "tree" and "house" are practically the same. The impact of plants on man had become so significant that several plant species created a demand for a necessary complementary element in the diet and socio-religious and cultural heritage of the country. Different plant species have through generations been used for different purposes. Besides their use for food, drink, and clothing, etc., plants (or their parts) were used also for other purposes like personal adornment and beautification of the home. In fact, as early as ca. 400 A.D. the Indian poet, Kalidasa, mentioned in his work Meghdoot (4) that Indian ladies had special preference for the flowers of certain plant species for adomment in each season. Kalidasa wrote that the women of Alkapuri used to adorn the knots of their pretty hair with the flowers of kuruvaka (Lawsonia inermis) in spring; their ears with the beautiful flowers of siris (Albizia lebbeck) in summer; their foreheads with the flowers of kadamba (Anthocephalus indicus) in the rainy season; their hands with the flowers of kamal (Nelumbo nucifera); and their cheeks with the pollen of lodhra (Symplocos racemosa) in winter. Similarly, the murals in the Ajanta caves, the quintessence of Buddhist art, which date from 100 to 600 A.D., not only show the high level attained by art in this period in India but also give us a glimpse of the life of the common people in those times. Some of these pictures show wreaths of flowers in the hair of women. The ladies wore gar-

^{&#}x27; Head of Division (Plant Improvement) and Ecologist, respectively, Indian Grassland and Fodder Research Institute, Jhansi, U.P., India.

² Lecturer, Biology Department, Agricultural Institute, Allahabad, India.

lands around their necks and bracelets of flowers around their arms. In fact, flowers formed an integral part of their toilet. Even today no religious or social gathering is complete without the appropriate flowers and foliage. Throughout his life the Hindu is familiar with flowers, while his corpse will be bedecked with flowers when carried to the funeral pyre. Plant parts are also used for making beads and rosaries for worship, prayers, and meditation. Ladies use several species of plants for making a wide variety of ornaments for personal adornment and for beautifying their homes.

For the last 10 years, we have been conducting field surveys to ascertain what plant species are used in India for making articles such as beads, rosaries, necklaces, and other ornaments. The species so used are given below.

Abrus precatorius L. (Fabaceae). Indian liquorice.

The red shining seeds of this climbing shrub, a native of East Indies, are used in rosaries and as beads for necklaces and in the decoration of boxes, baskets, bracelets, and earrings.

Adenanthera pavonina L. (Caesalpinia-ceae).

Coral-wood, Bead tree.

The shining scarlet seeds of this large deciduous tree found in South India, the Western Ghats, the Andaman Islands, and the Eastern sub-Himalayan tracts, are strung and worn by women in many parts of India as ornaments and necklaces.

Adhatoda vasica Nees (Acanthaceae). Malabar nut.

Small beads made from the wood of this evergreen shrub, commonly found in North India, are used in rosaries.

Aegiceras corniculatum (L.) Blanco (Myrsinaceae).
Goat's horn mangrove.

In the western coastal region of India the pretty white flowers of this shrub or tree are made into garlands.

Aegle marmelos (L.) Corr. (Rutaceae). Bael, Bengal quince.

Beads made from the bark and also from the wood of this evergreen tree are worn by the Sudras (low caste Hindus) to denote that they are not Muslims.

Aeschynomene aspera L. (Fabaceae). Sola pith.

The pith of this tall herb of wet places in Bengal and South India is cut into small bits, which are strung together and worn by aboriginal tribes as ear ornaments. Beads prepared from the pith are beautifully dyed in different shades and made into garlands for decorating idols and newly married couples.

Albizia lebbeck (L.) Benth.(Mimosaceae). Kokko.

North Indian women decorate their ears in summer with the flowers of this species.

Anthocephalus indicus A. Rich. (Rubiaceae).
Kadam.

In the rainy season, North Indian women put the golden yellow flowers of this moderate-sized tree on their foreheads for adornment and as a symbol of their happy married life.

Areca catechu L. (Arecaceae). Betel nut, Areca nut palm.

The nuts of this Malayan slenderstemmed palm are converted into fancy shaped beads that are polished and worn as necklaces.

Azadirachta indica A. Juss. (Meliaceae). Neem tree.

Stones from the succulent fruits of this tree are used as beads in necklaces and

rosaries. During smallpox epidemics, garlands beaded with the stones are hung on doors and verandas in the belief that such a practice wards off infection.

Bambusa vulgaris Schrader (Gramineae). Feathery bamboo.

Rings prepared from the split culms of this species are put into ear perforations by the Tunkul-Naga tribes of Manipur.

Bauhinia vahlii Wt. & Arn. (Caesalpiniaceae).

Camel's-foot climber.

The dried tendrils of this large climber found in Punjab, Madhya Pradesh, Bihar, Assam, and the sub-Himalayas are worn as finger rings by Santhal tribes. These rings are also used as charms against dropsy.

Butea monosperma (Lam.) Taub. (Fabaceae).

Flame of the forest.

The bright orange-red flowers of this small tree found in dry deciduous forests are worn in the ear by Hindu women.

Caesalpinia bonduc (L.) Roxb. (Caesalpiniaceae).

Molucca bean, Fever nut.

The seeds of this climbing shrub are used in necklaces, bracelets, and rosaries. The necklaces strung on red silk are worn by pregnant women as a charm to prevent abortion.

Cajanus cajan (L.) Millsp. (Fabaceae). Pigeon pea.

The wood of this cultivated shrub is cut into small beads for rosaries.

Calotropis gigantea (L.) R. Br. (Asclepia-daceae).

Madar.

In West Bengal, the purplish corollas are carefully picked up and strung into garlands for use in certain religious ceremonies. The garlands are also used in the worship of the Lord Maruti, the monkey god. When a Hindu is to marry for the third time, it is often believed that the third wife will soon die. Thus, in order to avoid such a calamity, the man is married first to a madar tree, which is then cut down. This ceremony is believed to ensure the longevity of the "fourth" but in reality the third wife, whom he then marries.

Canna orientalis Rosc. (Cannaceae).
Indian shot.

The seeds of this species are strung as beads along with the seeds of other plants for making laces and other ornaments.

Caryota urens L. (Arecaceae). Toddy palm.

The oval seeds of this palm are strung as beads.

Carissa spinarum L. (Apocynaceae). Natal plum.

The white flowers of this evergreen bushy shrub are strung into garlands and put in their coiffures by women in the western coastal region of India.

Coix lacryma-jobi L. (Gramineae). Job's-tears.

The hard, dry, spherical grains are extensively used by aboriginal tribes for ornamental purposes. Necklaces made from the seeds are frequently worn. The seeds are stitched in embroidery designs on the dresses of the Karen tribes. Angami Naga tribes prepare elegant earrings in which a rosette of seeds surrounds the wings of a greenish beetle.

Coix lacryma-jobi L. var. stenocarpa Oliv. (Gramineae).

The hard sub-cylindrical fruit cases are used by Naga and Khasia tribes of Assam to decorate their dancing equipment. Necklaces and earrings made from them are also commonly used by tribes in

Assam and the Northeast Frontier Agency hills.

Coix gigantea Koen. ex Roxb. (Gramineae).

The fruit cases are used for rosaries, beads, ornamental trays, baskets, and boxes in the eastern hill districts of India.

Corypha umbraculifera L. (Arecaceae). Talipot palm.

The polished seeds are used for making buttons and small carved ornaments and as beads by Hindu devotees.

Dalbergia sissoo Roxb. (Fabaceae). Sisoo.

The green seeds of this deciduous tree are worn by Santhal tribe girls as pendants for the ears.

Daphne papyracea Wall. ex Steud. (Thymeleaceae).
Nepal paper plant.

Garlands made from the flowers are used in religious ceremonies in Northeastern India and the Himalayan regions.

Elaeocarpus sphaericus (Gaertn.) K. Schum. (Elaeocarpaceae).
Utrasum bead tree.

The hard tubercled nuts are polished, made into rosaries, necklaces, buttons, and bracelets, and are worn by Brahmins and holymen. Modern hippies also use the rosaries and bracelets.

Elaeocarpus lancifolius Roxb., E. tuberculatus Roxb. (Elaeocarpaceae).

Nuts of both these species are made into beads, rosaries, bracelets, necklaces, and similar articles.

Entada phaseoloides (L.) Merr. (Fabaceae). Nicker bean. Ornaments made with the large seeds of this climber are worn as charms by the tribal people.

Erythrina indica Lamk. (Fabaceae). Indian coral tree.

The bright red seeds are made into necklaces resembling coral.

Gardenia turgida Roxb. (Rubiaceae).
Thanela.

The roots of this deciduous tree strung with a cord are worn as charms by the tribal people of Chota Nagur (Bihar).

Gossypium arboreum L. (Malvaceae). Asiatic cotton.

Fibres obtained from the fruits of this plant are converted into cotton wool, which is worn in ear perforations and on the hair for decoration by Naga tribes in Manipur.

Wall. ex Steud. Gyrocarpus americanus Jacq. (Combretaceae). Zaitun.

Rosaries and necklaces are made with the seeds in several parts of India.

Hibiscus rosa-sinensis L. (Malvaceae). Shoe flower.

In West Bengal, garlands made with the flowers are used in the worship of Kali, the goddess of power.

Ipomoea pes-caprae Sw. (syn. I. biloba Forsk.) (Convolvulaceae).

On the sixth day after their confinement, women hang garlands made from this creeper on their huts to protect their pregnancy from evil spirits.

Jasminum officinale L. (Oleaceae). Jasmine.

Women often ornament their coiffures and forearms with garlands made from the white fragrant flowers of this shrub.

Jasminum sambac (L.) Ait. (Oleaceae). Arabian jasmine.

In several parts of India, the fragrant flowers of this scandent climber strung in various decorative designs are used as hair ornaments by women. Flowers of double varieties are considered sacred to the Lord Vishnu, one of the Hindu Gods.

Kaempferia angustifolia Rosc. (Zingiberaceae). Kanjanbura.

Females of the Karen tribe attach the roots of this tuberous perennial herb to their necklaces for decoration and as a perfume.

Lawsonia inermis L. (Lythraceae). Henna.

Garlands made from the flowers of this shrub are used by North Indian women to adorn hair-knots.

Leucaena leucocephala (Lamk.) Wit. (Mimosaceae). White popinac.

Fruits of this tropical American species are used for ornamental purposes.

Linum usitatissimum L. (Linaceae). Flax.

The stem is cut into small bits, which are strung and used as necklaces in North India.

Mesua ferrea L. (Guttiferae).
Iron wood.

The flowers and buds are used in cosmetics and are much admired for their beauty and fragrance. In Assam, bunches of the delicately coloured young leaves are used for decorating the hair styles of women. The Assamese people also wear the flowers in their ear perforations.

Michelia champaca L. (Magnoliaceae). Champaca. The sweet-scented yellow flowers of this evergreen tree are worn in turbans and coiffures and are also offered to Hindu gods in the temples.

Mimusops elengi L. (Sapotaceae). Spanish-cherry.

Garlands made from the small, white, fragrant flowers of this evergreen tree are used for decoration. The seeds, as such or strung together, are offered to the Lord Shiva, a Hindu god.

Mirabilis jalapa L. (Nyctaginaceae). Four-o'clock.

The beautiful seeds and scarlet-crimson flowers, which at times are marked with white or yellow, are used in cosmetics and for decoration. Women employ the powdered roots, mixed with rice flour and sandalwood oil, as a cosmetic.

Nelumbo nucifera Gaertn. (Nymphaeaceae). Lotus.

Garlands made from the beautiful, fragrant, white or rose flowers of this aquatic herb are used for decoration and in the worship of the goddess Lakshmi, the symbol of wealth. Women from rich families generally carry the flowers in their hands during social functions.

Nerium indicum Mill. (Apocynaceae). Oleander.

The beautiful red flowers of this Mediterranean shrub are used for garlands.

Nyctanthes arbor-tristis L. (Oleaceae). Tree of sorrow.

The orange-red flowers of this shrub are strung and worn as hair ornaments and necklaces in western India.

Ocimum sanctum L. (Lamiaceae). Holy basil.

The roots and woody stem of this perennial herb are cut and made into

beads. Rosaries composed of 108 beads are extensively used by the Vaishnvas, a sect of the Hindus. This herb, planted in most Hindu houses and temples, is considered sacred to the Lord Vishnu, one of the Hindu gods.

Oroxylon indicum Vent. (Bignoniaceae). Sona.

The large, flat, winged seeds of this evergreen tree are strung as ornaments for the idols in temples.

Pandanus tectorius Soland. ex Parkin. (Pandanaceae). Screw-pine.

In the western coastal regions of India, women commonly use the sweet smelling spathes as well as the staminate flowers as hair ornaments.

Prunus cerasoides D. Don (Rosaceae). Wild Himalayan cherry.

Tribes of the Himalayan hills prepare rosaries and necklaces with the stones of this large tree.

Prunus mahaleb L. (Rosaceae). Gavala.

Necklaces made with the scented kernels of this European and West Asiatic tree are much valued by Hindu women and are sold in bazaars of Northwest India.

Putranjiva roxburghii Wall. (Euphorbiaceae).
Child-life tree.

Necklaces and rosaries made with the nuts are worn by Hindu Saints and by Brahmins, a caste of Hindus. Parents put these rosaries on their children to preserve them from harm and to ward off diseases attributed to evil spirits.

Mangifera indica L. (Anacardiaceae). Mango.

The leaves are strung into garlands and hung around temples and entrances to houses. No Hindu religious ceremony is complete without these garlands.

Samadera indica Gaertn. (Simaroubaceae).

Niepa bark tree.

The seeds are strung into rosaries and tied around children's necks.

Symplocos racemosa Roxb. (Symplocaceae).

Lodh tree.

North Indian women rub the pollen of this small tree on their cheeks as a cosmetic.

Symplocos spicata Roxb. (Symplocaceae).
Buri of Sylhet.

The hard seeds of this tree are perforated, strung like beads, and put around children's necks to ward off evil.

Syzygium jambos (L.) Alst. (Myrtaceae). Rose-apple.

Garlands made from leaves of this tree are used for decoration in several parts of North India.

Tabernaemontana divaricata (L.) R. Br. ex R. & S. (Apocynaceae). Crape-jasmine.

Garlands made from the flowers of this species are presented as offerings to various Hindu deities. Women in Maharashtra, Gujarat, and West Bengal decorate their coiffures with these garlands.

Tagetes erecta L. (Asteraceae). Big marigold.

Garlands made with the yellow flowers of this ornamental herb are employed for decorating idols of Hindu gods in temples. They are distributed by presiding Brahmins, the high caste Hindus, to the followers after the end of religious ceremonies.

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Tamarix aphylla (L.) Karst. (Tamaricaceae).

Athel tamarisk.

The wood of this tree is cut and converted into small ornaments. The inflorescences are used by women for decorating their coiffures during certain social gatherings.

Taxus baccata L. (Taxaceae). Common yew.

Twigs of this conifer are worn by young unmarried females of the Naga tribes for decorating their shapely figures and also as a charm to prevent pregnancy, since chastity is a virtue among them.

Thevetia peruviana (Pers.) K. Schum. (Apocynaceae). Yellow-oleander.

Nuts of this tropical American tree are strung as beads and worn by tribes of West India.

Vateria indica L. (Dipterocarpaceae). White damar.

Resin from this tree is converted into beads resembling amber and worn for decoration.

Vanda rox burghii R. Br. (Orchidaceae). Rasna.

Leaves of this orchid are split, strung, and worn as anklets by girls of the Santhal tribe of West Bengal.

Xeromphis spinosa (Thunb.) Keay (Rubiaceae).

Emetic nut.

Fruits of this tree are considered sacred to the Lord Shiva, one of the Hindu gods, and are tied upon the wrists of brides and bridegrooms at marriage.

CONCLUSION

The above account shows that, in India, different parts (roots, stems, leaves,

flowers, and fruits) of many species of plants are used for adornment, as charms. in rituals and socio-religious ceremonies. and for beautification of homes and temples. There are even specific plant species whose parts are used for beautifying the female's fingers, wrists, arms, necks, cheeks, ears, and hair - delicate and scented flowers reflect the delicacy of the female figure. Flowers and bright foliage used in rituals and beads and rosaries used in meditation and prayers play a large role in the life of the Indian people and attest to their artistic interests. Devoted care of and emotional interest in ornamental plants are strong driving forces in some cultures but not in others. Thus, while in India and Southeast Asia is brought together a whole series of civilizations which center their lives and activities around beautiful and scented flowers and ornamentals, the attention paid to flowers and ornamentals for example, in Africa, is proportional to non-African (Asiatic, Arab, and European) influence. In fact, Anderson (2), in a world look at floral versus non-floral agricultures, concluded that these are concentrically arranged around two poles: the pole of non-floral, seed-crop agriculture is in central Africa, while that of floral agriculture is in Indonesia, radiating outward to Oceania, to the flowery kingdoms of China and Japan, to India, and even to dry and rocky Afghanistan. On present evidences, it is difficult to conclude whether man began to use plants first for food or for other purposes, e.g., body paints, charms, beauty aids, protection and shelter, and in socio-religious ceremonies. In any event these are areas of investigation greatly in need of scrupulously careful field work and analysis if we are to understand man's relation to plants and the stages of crop plant domestication.

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Book Reviews (continued from page 38)

Trees of Puerto Rico and the Virgin Islands.

Volume 2. Elbert L. Little, Jr., Roy O. Woodbury, and Frank H. Wadsworth. 1024 pages. Illus. United States Department of Agriculture, Washington, D.C., 1974. \$13.45

The earlier volume of this illustrated reference is Common Trees of Puerto Rico and the Virgin Islands, by Elbert L. Little, Jr. and Frank H. Wadsworth (U.S.D.A. Agr. Handb. 249. 1964). A limited number of copies is still for sale by the Superintendent of Documents, the present price \$8.50.

The first volume contains descriptions and drawings of 250 common tree species. The second similarly treats 460 additional species, briefly describes 40 others, and contains keys to all 750 species. Thus, either volume can be used independently.

Many of the plants described in the work are also found in Hawaii. Dr. Little has indicated to me that he hopes to prepare a similar publication on the Hawaiian flora.

Trees of Puerto Rico and the Virgin Islands may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

L. W. "BILL" BRYAN Box 124 Kailua Kona, Hawaii

The Blue-Green Algae. H. E. Fogg, W. D. P. Stewart, P. Fay, and A. E. Walsby. 459 pp. illus. Academic Press, New York, 1973. \$24.00

Various aspects of the taxonomy, phylogeny, morphology, physiology, and ecology of the blue-green algae are presented in this multiauthored text. Although comparatively little treatment is given to phylogeny and taxonomy, the authors have produced a broadly-based review of the biology of these prokaryotic organisms. The need for such comprehensive treatments has long been apparent to biologists, and it is interesting that two such volumes have been published in the same year (the other, *The Biology of the Blue-Green Algae*, edited by N. G. Carr and B. A. Whitton—see review by J. R. Stein, *Phycologia* 12:250).

This handsome volume contains few typographical errors or production shortcuts. I found some of the lettering and arrows on the electronophotomicrographs obscured. However, most of the figures and tables are well done. The legends of those adapted from other sources contain a reference citation, which is beneficial if one plans to pursue any of the original works. I did not find any major errors or omissions in the extensive "Literature Cited" section. The authors have also prepared a complete index that includes taxa cited in the text. In a cross-check of several taxa, including those listed only as genera, I found none listed erroneously. However, authors' names are not indexed; the addition of an author index would be a beneficial tool in such a complex work.

The organization of the text is somewhat puzzling. Material on differentiation, reproduction, and life cycles is not presented until the middle of the text (chapter 11), a position remote from related material. The ecology of freshwater, marine, and terrestrial organisms, as well as the ecology of nitrogen fixation, are treated in separate chapters. Curiously, amongst these is a chapter on pathogens of blue-green algae. A brief summary of algae culture, including isolation, purification, nutrition, and growth, is included in chapter 7. Little discussion of techniques is presented therein, although sufficient literature is cited for those

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