The Secrets of Traditional Asian Beauty

June 12, 2015

http://www.asianscientist.com/2015/06/print/secrets-traditional-asian-beauty/

AsianScientist (Jun. 12, 2015) - Did you know that many beauty products have their basis in science? We take a look at ancient natural beauty remedies that Asian women have been using for centuries.

-------

#1 SKIN WHITENING

Although Chinese notions of beauty have changed over its long history, one thing that has stayed constant is the desire for fair skin. Today, skin whitening products represent a multi-million dollar growth industry not only in China but all across Asia.

In 2011, Taiwanese scientists found that compounds isolated from an herb used in traditional Chinese medicine could also be used to lighten skin. They showed that linderanolide B and subamolide A from the *Cinnamomum subavenium* plant could inhibit the production of melanin, the dark pigment that gives skin its color.

When they tested the compounds on zebrafish embryos, which normally contain a highly visible band of black pigment, they found that exposure to a low dose of the compounds was sufficient to turn the embryos white.
The Chinese were one of the first to redden their lips, using a lip balm made with the pigment vermilion. Derived from naturally occurring mercuric sulfide ores, vermilion was also used in art and lacquerware, so much so that it became known as ‘Chinese Red’. In fact, the Chinese are believed to have been the first to make synthetic vermilion as early as 5000 BC.

Instead of covering the entire lip surface as is done in modern times, Chinese during the Han period only painted a portion of the lower lip and a pointed section of the upper lip, covering the rest of their faces with white powder. The ideal lip shape evolved over time, with different conventions in the Tang, Song, Ming and Qing dynasties.

Today, however, vermilion has fallen out of favor due to its toxic properties and has largely been replaced by cadmium red.
#3 HAIRCARE

Closely related to the common tea plant, *Camellia japonica* is an evergreen shrub valued for its attractive flowers. The plant has been cultivated in East Asia for centuries, even appearing in art and porcelain from the 11th century.

Japanese women, particularly geishas, have traditionally used oil cold-pressed from the seeds of *C. japonica* to make their hair glossy and sleek. Called tsubaki oil, it is rich in fatty acids like omega-6 and omega-9 that make it an excellent emollient for both hair and skin. It is applied to damp hair after a bath, either by hand or with special combs made from tsuge or boxwood.

Tsubaki oil has spawned an entire industry, with shampoos, bath products and an array of sprays all eager to lay claim to its natural benefits. However, commercially extracted tsubaki oil is often processed with chemicals and high heat, which may reduce its effectiveness.

Photo: Shutterstock.
#4 FACIALS

This next beauty secret used by geishas is understandably less popular, at least for the moment. Geisha facials, or *uguisu no fun*, literally means “nightingale droppings” in Japanese. Originally used by the Koreans to strip dyes from fabrics and create elaborate patterns, *uguisu no fun* was adapted into a beauty product by the Japanese during the Edo Period.

Favored as a soothing cleanser by geisha and kabuki actors, who often wore heavy white makeup containing zinc and lead that caused severe skin irritation, today, fans of the treatment include UK footballer David Beckham and his fashion designer wife, Victoria Beckham.

Before you start looking out for the nearest pigeon, do note that bird droppings can contain harmful bacterial or fungal spores. *Uguisu no fun* is collected from special farms where Japanese bush warblers (*Horornis diphone*) are fed organic seeds. Bird droppings are scrapped off the cage floor, sun-dried and sterilized with ultraviolet light.

Scientists do not yet understand why *uguisu no fun* appears to smoothen skin and reduce wrinkles. However, it has been suggested that the high urea content helps skin retain moisture while guanine creates a shimmering effect.
#5 CLEANSER

Korean cosmetics might be all the rage today, but a concern for beauty goes far back into the history of the country.

According to the *Dongui Bogam*, a book of traditional Korean medicine published in 1613, a mixture of ground mung beans, azuki beans and soybeans called *jodu* makes for an excellent facial cleanser, softening skin and providing a whitening effect. Mung beans contain high amounts of saponin, a chemical compound that produces a soap-like foam when shaken in water.

In 2013, a study led by scientists from Korea University showed that mung bean saponin indirectly slows inflammation by preventing the multiplication of immune cells known as T helper cells. Saponins from other plants are currently being developed for applications ranging from surfactants to cancer treatments.
#6 SKIN CARE

*Makgeolli* is an unfiltered rice wine traditionally popular with Korean farmers but is now experiencing a growing interest in Japan thanks to its sweet, milky flavor and low alcohol content. Made by the fermentation of boiled rice and wheat, *makgeolli* has also found its way into a wide range of Korean beauty products for its purported skin whitening and smoothening benefits.

The fermentation of cereals converts poorly digested proteins into amino acids and unpalatable carbohydrates into sweet sugars. *Makgeolli* fermentation uses a traditional Korean starter culture known as *nuruk*, a mixture of fungi, yeast and lactic acid bacteria. A 2011 study from Kwangwon National University found that *nuruk* was a good source of the anti-cancer compound 2,6-dimethoxy-?-benzoquinone, adding to the list of *makgeolli* benefits.
Amla oil is a popular Ayurvedic treatment used to straighten hair and is also thought to prevent premature greying. Amla oil is obtained from the berry-like amla fruit, also known as the Indian gooseberry (**Emblica officinalis**), which is sour and bitter tasting and rich in phytochemicals. To make amla oil, dried amla fruit are soaked in coconut oil for several days and then filtered and purified. The resulting oil is massaged into the scalp and rinsed out.

The high vitamin C and tannin content of fresh amla fruit has attracted the attention of scientists studying antioxidants, with a recent study published in the journal *Toxicology International* showing that amla extracts reversed arsenic-induced oxidative damage in mice.

However, a 2011 study of microbial contamination in traditional herbal products showed that both dried amla fruit and amla oil are frequently contaminated with various species of fungus, including those capable of producing toxic and carcinogenic aflatoxins, which suggests the need for caution when using the oil.
Raja Serfoji (1777–1832 AD), a king in the Maratha Empire (today part of India, Pakistan and Bangladesh), founded a medical research center called Dhavantari Mahal where the efficacy of traditional Indian herbs were tested. The results were collated in a series of manuscripts called *Anubhoga Vaidya Bhaga*, which means “recipes tested by experience”, listing various symptoms and their remedies.

Among the thousands of recipes was a treatment for breast enhancement. The recipe calls for gajapimpali fruit (*Scindapus officinalis* Schott.), powdered Indian ginseng (*Withania somnifera* Dunal.), snow lotus (*Saussurea lappa* Clarke.) and buffalo’s milk butter, otherwise known as ghee.

Evidently, women have for centuries looked for ways to enhance their bustlines.
#9 ACNE TREATMENT

*Bedak sejuk*, which in Malay literally translates to “cool powder”, is a facial powder used widely in Malaysia. To make *bedak sejuk*, rice is soaked with local flowers such as *bunga melor* (*Jasminum sambac*), *cempaka* (*Magnolia champaka*) and *tanjung* (*Minusops elengi*) for two days. The scented rice is then ground into a paste and filtered to remove the larger particles.

When mixed with water, *bedak sejuk* is used as a thick facial mask worn overnight to sleep. In the day, *bedak sejuk* is mixed with more water and worn as a lighter facial powder. The versatile powder is also used to treat acne, either by mixing it with lime juice or cinnamon powder. Mothers living in the hot and humid tropics also apply *bedak sejuk* to their children’s faces to prevent rashes and skin irritation.
#10 SLIMMING

*Jamu* is a system of traditional medicine practiced in Indonesia that traces its origins to the Medang kingdom some 1,300 years ago. Typically made by women with recipes handed down over the generations and peddled on the streets, companies have now joined the *jamu* business with factory-scale manufacturing of pills, powders and bottled drinks.

One common *jamu* treatment sold in Bali is *jamu kunyit assam*, a drink of *turmeric* (*kunyit*) and *tamarind* (*assam*) mixed with either water or lime juice. *Jamu kunyit assam* is drunk mainly to help with weight loss and for general health.

Scientists have identified the chemical curcumin as the active compound in turmeric. Curcumin has been reported to have anti-microbial, anti-inflammatory and anti-tumor effects. However, due to its poor water solubility, ingested curcumin is often not easily absorbed. Furthermore, curcumin was found to promote the development of cancer in other studies, and may lead to iron deficiencies due to its effects on iron metabolism.
Photo: Exotissimo Travel/Flickr.

This article was first published in the print version of Asian Scientist Magazine, October 2014.

To read more, subscribe to Asian Scientist Magazine in print and receive four issues of Asian Scientist Magazine delivered directly to your mailing address for 12 months, inclusive of taxes and postage.