

BACK TO BASICS

a review of plant materials

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Introduction

The Alexandrian sage Jesus ben Sirach coined a phrase some two thousand years ago that roughly translated, reads:- "God created the plants that heal, and a sensible man will not despise them". It is a sentiment that we would do well to remember.

In days of old, the distinction between skin care and medicinal skin products may not have been so distinct as it is today. They did not have to navigate the fine line between the Medicines Act and the Consumer Product (Cosmetic) Safety Act.

The Egyptians

The Egyptians were large users of plant materials, they used Henna (*Lawsonia alba*) to dye their nails and hair, used coloured mineral salts as eye make up and were quite proficient in making ointments and emulsions that contained plant materials. Admittedly, some of those emulsions used milk as a base, since they did not have the modern efficient emulsifiers that we have today.

They were also immense consumers of a large number of essential oils and one finds numerous references to the custom of anointing various parts of the body with those oils. There are also many illustrations in papyri, on artifacts and on tomb wall paintings of these undoubtedly expensive and precious oils being both prepared and applied. These would have included sweet flag (*Acorus calamus*); aromatic rush (*Andropogon schoenanthus*); cinnamon (*Cinnamomum cassia*); mint (*Mentha* spp.); juniper berries (*Juniperus communis*); galingale (*Cyperus longus*); frankincense (*Boswellia thurifera*) and myrrh (*Commiphora molmol*) to name but a very few.

The Bible

Another source of valuable information can be found in the Bible, for example, (Psalms Chapter 45 verse 8) we find the reference: All thy garments smell of myrrh and aloes, and cassis out of the ivory palaces, whereby they have made thee glad. There are further mentions of precious oils and in another example there is the preparation of an incense (Exodus Chapter 30 verses 23 - 25) where one notes that myrrh, sweet cinnamon, sweet calamus and cassia are being used. Further on (verse 35), "and thou shalt make it a perfume, a confection after the art of the apothecary, tempered together, pure and holy".

Once again the link between the practices of medicine and the cosmetic art is apparent. Finally, in the first book of Chronicles Chapter 9 verses 28 - 31 one can find a description of perfume making.

The Chinese

Meanwhile, the Chinese had also developed a highly sophisticated knowledge of cosmetics and herbal medicine. Based on the principle that most recipes consist of an Emperor herb, which is the main beneficial in the blend; the Ministers, which support the Emperor herb in its action; the Assistants, which provide a complimentary action; the Harmonisers which help attune the mixture; and finally, a Directional herb, which acts directly to support the function of the Meridians.

These advanced blends are based on the concept that there needs to be an equilibrium and dynamic balance between the opposing forces, Yin and Yang. Health is seen as the harmony between these forces.

The Indians

The Indian continent had a rich understanding of plant materials and a finely developed system of Ayurvedic medicine. They too had a rich palette of essential oils and plant extracts with which to beautify and protect the skin. Exotic oils of patchouli, cedarwood, cinnamon and precious spices; gardenia, galingale, vetiver, jasmin and rose to bathe and swamp the senses in their sensuous guises. Many of these are well known to us today as the classic aromatherapy oils used by Valnet and Tisserand.

Later history

The use of plants can be found throughout time, whether it be the Abbess Hildegard von Bingen in the 12th Century, or the Physicians of Myddvai in 13th Century Wales, or the many tribes of American Indians who taught the settlers how to use the local medicinal plants. History continually reconfirms the benefits of natural skin preparations based on herbs and medicinal plants.

A well known example would be, when Aloe vera (*Aloe barbadensis* Miller) used in the southwestern states of the USA was 'rediscovered'. Its traditional use for burns was examined and the inner gel found to be excellent not only for thermal burns, but also for radiation burns. There are countless other examples.

However, a word of caution, being natural is not a guarantee of safety. Nature has some very toxic poisons in its repertoire. The right part of the plant extracted in the proper manner, for the exact indication, and delivered at the right dose or level will be safe.

The Future

The use of natural plant materials in our products shows no signs of slowing down. The pharmaceutical companies are continually studying the taxonomy of plants in order to isolate new active chemicals for drug use.

The latest discoveries would include taxol from the yew tree (*Taxus brevifolia*) and vincristine and vincamine from the Madagascan Periwinkle (*Vinca rosea*), both plants used in the treatment of specific cancers.

It has already been intimated that the link between medicine and cosmetic science is a strong one. If medicinal products deal with the treatment of diseased skin, then cosmetics deal with the protection of healthy skin.

The plant world is supplying us with numerous chemicals today, such as α -bisabolol from German Chamomile (*Matricaria chamomilla*), GLA (gamma linolenic acid) from Evening Primrose oil (*Oenothera biennis*) and 18- β -glycyrrhetic acid from liquorice (*Glycyrrhiza glabra*). Each month there are exciting new materials and new actives to evaluate.

The discovery of new anti-oxidants and free-radical scavengers will help to protect the skin from the harmful effects of solar radiation. More and more natural emollients are being discovered, as research is carried out into the ethnobotany of the African and Australian continents, to protect dry skin.

The only limitation to new discoveries is the ravages that Man is imposing on his environment. Who can tell what opportunities are being lost by deforestation and through pollution.

Fortunately, the use of natural herbs and extract has a positive effect, the more plants we use, the more valuable those resources become and better the chance we have of saving species for future generations.

[1035 words]

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