



## Scents and Moods

Scents have been used for centuries for pleasure and well-being. Ancient Egyptians kept aromatics used for medicine and perfume in beautiful bottles, which have been preserved in their tombs. The writings of ancient Greeks, Romans, Chinese and Hebrews all mention medicinal and aromatic scents. Many of the essences used thousands of years ago are still available today.

In present time we also use fragrances to make the products we use and our environment more pleasant, with perfumes and body lotions being obvious examples. We also have aromatic candles and diffusers, sachets in our lingerie drawers, and fabric fresheners for our clothes and bedding. Scents are used to enhance the flavor of food, make cleaning products more appealing, and improve the ambience of a room. There was even a short-lived movie concept called smell-o-vision, and an idea for a cell-phone that released "smell-tones" when a call is received. (The idea was scrapped because people didn't like the idea of their pants being soaked with perfume every time someone calls.)

The science of the sense of smell, Aromachology, focuses on our perception of smells. It refers to collection of data to study the interrelationship of psychology and fragrance technology to transmit a variety of specific feelings and enhance behavior through the olfactory experience. Research seeks to establish the effects of aromas on human behavior. It focuses on the olfactory system, which provides us with our sense of smell.

The olfactory system is comprised of neurons called olfactory sensors, which recognize odor molecules and then send signals to the olfactory bulb, located above the eyes. Signals from different sensors are targeted to different spots that form a sensory map. From there the signals reach the olfactory area of the cortex, the area of conscious thought. In addition, the information travels to the limbic system, which is the primitive part of the brain that includes areas that control emotions, memory and behavior. Memories of smells are stored in the hippocampus, and through relational memory certain smells trigger certain memories. Researchers continue to use brain-mapping to determine how the olfactory system works.

Because olfactory information goes to both the primitive and complex parts of the brain it affects our actions in more ways than we think. The connections between odors and emotions have an obvious survival value for our species. The smell of good food is appealing, while the smell of rotten food is not. We recognize either the "yecch" or the attraction of smells, without cognitive awareness of the actual source of the aroma. Aromachologists use these emotional ties, as well as scientific studies to substantiate hypothetical effects of scents, when formulating aromas to foster moods.

Aromatherapists have long used essential oils for healing, emotion and mood. Aromachologists focus on the ambient odors provided by these oils, and combine these, as well as other scents, to produce complex perfumes. Aromas such as vanilla, bergamot and lavender have been found to produce a calming effect, while those in the citrus family and geranium are considered

purifying. Vanilla, jasmine, rose and ylang-ylang are warming notes, while sage clary, cinnamon, and spearmint are known to stimulate alertness. Rose, jasmine, and ylang-ylang are thought to have aphrodisiac properties, spearmint and petitgrain are felt to provide mental stimulation.

The combination of various scents to produce a particular fragrance is both an art and a science. The perfume industry is using research tools such as post exposure questionnaires or motion-logger watches to substantiate claims that certain scents affect mood or enhance the quality of sleep. Physiological changes in the brain associated with the sense of smell are being identified. Researchers are working on scents to alleviate anxiety, scents to aid in sustaining attention, improve interpersonal relationships, and those that may make repetitive or dull tasks more pleasant.

The connection between scent and mood is endemic to our species, but we are just beginning to scratch the surface of the intricacies behind this relationship, and also how we can use this interrelationship to improve our quality of life.

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