Digitally Delivered Fragrance and the Perfumer

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For as long as man has used fragrance, it had one feature that set it apart from all other forms of esthetic decoration, cultural messages, sensory agents and psychological magic: once you presented it, you had lost control over it. It would float wherever diffusion and air currents carried it. It would linger, gradually diminishing in intensity, over a period of time that was dictated by its own volatility and the properties of its carrier. All of the technical advances that perfumery has known in terms of analysis and synthesis, production, and application, have not altered the fact that once we release a fragrance, we have no more control over its expansion and its fading in the dimensions of space and time than did the ancients who first used it for their religious ceremonies, worldly feasts and personal embellishment.

Thanks to the invention of new techniques of controlled fragrance delivery, this situation is now changing. We are now able to release fragrance and turn it off again with a precision in timing that matches the unfolding of a story on a television, video, computer or movie screen. If we wish, we can, by repeated release, keep it in the air at unchanging intensity for as long as we want. We will soon be able to change fragrance quality at a rhythm and rate of our own choosing by digitally controlled blending or successive release of different scents. Through our ability to choose the site or sites of release, to adapt the design of the release ports, and to select the concentration of fragrance materials and the flow rate of the carrier gas, we can control, more precisely than ever before, the area over which the fragrance will be noticed. Better yet, we will give the individual consumer the power to control this area as he or she now controls the volume of their television set or CD player.

Digitally released fragrance is coming into being through the synergism of vision, technology and organizational skills. As always, vision is the driving force: a grasping of the worlds of opportunities opened by the linking of fragrance with electronic communication and entertainment media; by the feasibility of fine-tuned ongoing control of air quality, environmental fragrance and its potential for mood promotion; and by the reinstatement of the sense of smell in daily life through the controlled use of odors as messages.

Advances in electronic and micromechanical engineering were a precondition for digitally released fragrance as a technology. Now that it has turned into an industry, digital fragrance has become a catalyst and a breeding ground for further development and refinement of the technologies on which it is built.

A high order of organizational skills is, of course, required to get the variety of specialists involved – perfumers and chemists, mechanical and electronic engineers, programmers and communicators – to understand each others needs, and to work closely together in achieving common goals.

For the consumer and a wide array of consumer product and consumer services industries, this marks a revolution in the use of fragrances. Will it also mean a new departure for the perfumer in the exercise of his art and craft? To answer this question, we will look at digitally released fragrances from four separate perspectives: fragrance adaptation, fragrance selection, fragrance creation, and industry structure.

Fragrance Adaptation

If the marketer of a fragrance decides to promote this fragrance by means of a digital-release point-of-sale unit, he or she is faced, in principle, with the same set of technical problems that come with any line extension. In order to retain the character of the flagship form (for example, an alcoholic cologne) the fragrance will have to be adapted, taking into account both the base odor and the chemical and physical characteristics of the special carrier materials or solvents used in the new application. As every perfumer knows, this can be quite tricky. I expect the personal experience I have gained will come as a pleasant surprise: the carrier materials and solvents used in the systems with which I am involved are so neutral in odor and so chemically inert that no problems of masking or instability arise. Even adjusting the proportions of the original fragrance components to accommodate the special release characteristics of the system has turned out to be unnecessary since the system is sufficiently flexible to permit its adaptation to each specific fragrance. In the course of years of close cooperation with major international fragrance marketers, I have dealt with a variety of fragrance/solvent/carrier formulations and the development of such formulations.

Fragrance Selection

When my client began to work with the marketers' fragrance

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evaluators in the development of the first point-of-sale units in 1997 and 1998, a novel question soon emerged. What should the whiff of fragrance that the consumer picks up while watching the video scene really be like? Should it smell the way the spray cologne smells the moment it is sprayed into the air? Or like the fragrance after it has been upon the skin for a few minutes? Or should it be a compromise between these two momentary impressions? This question arises with the brief fragrance bursts delivered from the basic point-of-sale unit because a burst represents just one moment in the process of unfolding, a brief snapshot frozen in time. Selecting the optimal snapshot for the presentation of a fragrance is essentially a marketing decision. Since it is crucial input to the development of fragrance/solvent/carrier formulations, this decision should be taken at the outset.

Fragrance Creation

In the realm of creation, the digital release of fragrance presents the perfumer with a host of new challenges. For one thing, the scenes in television shows or computer shows that will be scent-accompanied demand blends that suggest indoors or outdoors — city or nature scents that lie outside anything the perfumer has created up to now: naturalistic scents of musty cellars or farm yards, of horses or race cars. The perfumer will have to go well beyond his or her classical training to master such challenges. For another, once multi-fragrance release units have been perfected, the perfumer will gain the same kind of control over the unfolding of a fragrance in time as a composer has over his music. Gone will be the days of the obligatory fresh top-note and the warm base-note. The composing of a fragrance that starts out on an intimate warm note, to ascend into a bright burst of citrus and fresh fruits, or even of extended fragrance sonatas, will become feasible. The art of fragrance composition will acquire a totally new dimension.

Fragrance Industry Structure

The significant extension of the range of scents to be created may well lead to structural changes in the fragrance industry. We may well see increased demand for creative talent and for the analysis of all kinds of environmental scents to guide the perfumers in their work. Given the high demands put on analysis and creation, coupled with the relatively low fragrance volume needs of digital delivery systems, we may see the rise of fragrance designers or fragrance agencies who charge their clients directly for their creative efforts rather than through the margins on the volume of fragrance sold.

Now that fine-tuned control of fragrance over time and space, quality and intensity at the point of application is becoming a reality, neither the consumer's world nor the fragrance industry will ever again be quite like they were before the pre-digital age.

References

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