

facing the future

AT THE DAWN OF THE 21st CENTURY, OUR CURIOSITY ABOUT WHAT SCIENCE CAN DO FOR THE FACE KNOWS NO BOUNDS. ONE WOMAN WONDERS: HOW FAR CAN IT GO?

by joan harting barham

We live in dizzying times, beauty-wise. A quick flip through any supermarket beauty magazine reveals that lunchtime Botox injections are now commonplace, eyelash extensions are already available in salons from Vancouver to Halifax, and buttocks facials are not far, er, behind — not to mention the reality TV shows wherein subjects undergo head-to-toe cosmetic surgeries before our eyes.

Clearly, a little moisturizer and a dab of lip gloss just aren't going to cut it any more. Our opportunities and avenues for self-enhancement are growing exponentially; even this side of surgery, beauty procedures and products become ever more scientifically complex and the claims for them ever more alluringly dramatic. The bar is being raised; the question is, how high?

When we look back on this time from the future, will we still feel increasingly pressured to look ten or twenty years younger? Must we strive to emulate models and celebrities? Or simply keep up with friends and co-workers, who are in ever-increasing numbers having injections and surgery?

Those who work in the beauty industry, perhaps even more so than fashion designers and stylists, have their gaze firmly fixed on the horizon. I asked some cosmetics industry executives, cosmetic surgeons, and other soothsayers if I could peek into their minds.

Not surprisingly, the most fascinating forecasts of cosmetics industry leaders — whose careers dictate a constant search for new techniques, formulas, and inspiration, often over months, maybe years, of product development time — hinge on technological advances. “We have a lot of incredible things cooking,” says Dominique Moncourtois, from his “kitchen” at Chanel headquarters in Paris. “And much of the innovation will be achieved by looking outside our industry.” Moncourtois, whose official job title is “international director of makeup creation,” explains how cross-fertilization involving auto paint processes and ink technologies discovered at a stationery expo contributed to the creation of Chanel's über-hot blue-black nail lacquer shade called Black Satin, and will affect future formulas for mascara and liner as well as nail enamels. Without giving away any trade secrets, he also reveals that “a yogurt dessert prompted our investigations into machinery that delivers new types of emulsions. This is, of course, very interesting vis-à-vis developing skincare products.” Perhaps most intriguing is Moncourtois's prediction that medicine's artificial skin technology will be applicable to cosmetic foundations in the foreseeable future — making a truly flawless complexion within reach.

Dr. Peter A. Adamson, a professor at the University of Toronto and a respected plastic surgeon, concurs that tissue engineering will eventually impact elective enhancements. “After all, we've already learned how to grow cartilage,” he notes. “In a decade or so, we may be able to engineer collagen and skin elastin.” He also believes that some day, as a result of the 13-year Human Genome Project, coordinated by the U.S. Department of Energy and the National Institutes of Health, it will be clinically possible to identify the genes that make one person age faster than another, and thus discover, and address, the reasons why skin ages. In the shorter term, he foresees longer-lasting temporary fillers for facial lines that also yield smoother results, and 3-D imaging to create affordable custom-designed, custom-manufactured cheek and chin implants.

An in-demand dermatologist I spoke to says that the wave of the future is heat. Toronto-based Dr. Lisa Kellett is already using two heat-based systems (radio-frequency machines for a procedure known as Thermage, and lasers to stimulate collagen and elastin). And she's excited by a soon-to-be-approved ultrasound technology aimed at spot fat liquification. “We're talking a non-invasive way to tighten love handles, necks, maybe even breasts,” she says.

London-based Pat McGrath, who sets the makeup looks for runway shows around the world, is also a consultant to cosmetics companies, and thus knowledgeable about the trajectory of beauty technology. She predicts that within five years, foundations and treatment products will be able to “read” the skin, via tiny enviro chips, to determine the level of moisture, coverage and texture required. Likewise, colour cosmetics, such as lipsticks and shadows, will adapt their hues to complement skin tones in all kinds of lighting — like glasses that transform into

sunglasses outdoors. Tomorrow's products will have a “chameleon-like quality” so the complexion always looks perfect. She's spent the last eight years collaborating with SK-II, the high-tech Japanese skincare company, on its new Air Touch Foundation, packaged in a spaceship-like disc that mists the face with a uniform layer of tinted particles through a revolutionary “ionization dispersion technology.”

It begins to sound a bit *Star Trek*, but then, McGrath is kind of a beauty superheroine. And the beam-me-up-speak doesn't end with her. Loretta Miraglia, senior vice president of product development for La Mer, which produces the ultra-high-end Crème de la Mer, injects “shape memory polymers” into the discussion. La Mer's take on all this is worth paying attention to, for, as has already been shown, women from all walks of life are already willing — nay, compelled — to shell out \$250 for a jar of its cult skin cream, whose formula is based on seaweed, in the hopes that wrinkles will be diminished by the cream's nourishing “broth.”

Regular old polymers, according to the dictionary, are large, organic molecules formed by combining many smaller molecules in a regular pattern. The shape-shifters that Miraglia's talking about are “responsive polymers that morph based on specific triggers such as [body] temperature and pH.” She believes these special molecules, currently used in the medical field, will be adapted by the skincare industry in the not-too-distant future.

And then there's anti-gravity. “We'd all look better without gravity weighing us down,” notes Miraglia, “and since space is the ultimate anti-gravity environment, we're working with NASA transfer technology to create ‘micro-gravity environments.’” Ultimately, she'd “love” to make a skincare cream that “would allow everyone to look as good as they would in space.”

I don't have the advanced degrees in molecular biology, biochemistry, and physics required to understand all the specifics, but I get their drift. The parameters of the possible, self-improvement-wise, are limitless. But what is the goal here? Have we embarked on the relentless pursuit of perfection? Will increasingly potent products and procedures trigger higher and higher standards that will in turn provoke more and more of us to the beauty equivalent of going postal (or, should we say, going Wildenstein, for the surgery-obsessed New York socialite?)

The beauty insiders I talked to think not. Dr. Kellett describes her typical patient as one who may feel that she looks tired. “Nobody's expecting to look 20 years younger,” she says. Similarly, Dr. Adamson claims most of his patients arrive at his office simply because they've looked in the mirror or seen a photo of themselves, and their reaction is, “That face doesn't reflect how I feel.”

We've heard before all these explanations for the rise in cosmetic surgery. Dr. Adamson, who has authored academic papers on how beauty is perceived, does concede that norms are changing and suggests a socio-anthropological cause. “What we find attractive derives from a subconscious averaging of all the images of faces we see. Fifty years ago, most of us lived in largely mono-cultural societies. But in our increasingly multicultural world, we experience — and assimilate — faces from many different races and cultures, so our standards of beauty are shifting accordingly.”

The good doctor's point, it occurs to me, is handsomely borne out by the remarkable number of top models that multicultural Canada has sent to the world's runways in recent years: Daria from Ukraine, Honorine from Rwanda, the Irish-Russian-Welsh Coco Rocha, and Balenciaga muse Irina Lazareanu from Romania, to name just a few.

But then, the very mention of models reintroduces the notion of perfection. We're constantly exposed to images of carefully coiffed and made-up models (and celebrities), their already impressive complexions and facial contours Photoshop'd to perfection. Surely these images are factored into our collective subconscious too.

Miraglia takes a slightly different approach to the question of what women are trying to achieve in the name of beauty. “People want to look their personal best, but there is an overarching need for authenticity.” And determining one's personal best, the La Mer VP points out, can be as simple as becoming better-educated about the realities of environmental damage to skin. “There's the 80/20 rule,” she explains. “Eighty percent of the appearance of aging has to do with the environment, twenty percent with chronological age. Since the skin there” — presumably — “has never been exposed to the environment, your backside registers the real chronological age of your skin. I think most people would be happy with that.” Maybe she's right. I haven't checked — yet. □