ELISE LIU **The Infamous Hourglass** Constructing the Perfect Female Figure 2008 Sosland Prize in Expository Writing

> "The corset will live as long as the innate desire to please lives in woman's heart...One can destroy a religion, overthrow a government; against the corset one can do nothing!...Hail, O corset! You are blessed by all women, and even those whom nature has overwhelmed with gifts cannot pass your competitive exam...May your power grow still greater, if this is possible, and may your name be glorified all over the earth...Amen."

> > -Advertisement for Leoty corsets, La Vie Parisienne, 1886:127.

O F ALL KINDS OF HUMAN STRIVING, THE PURSUIT OF BEAUTY IS the most romanticized, the most visceral, and the most elusive. We do not pen sonnets to exalt brilliance or commend late-night studying; we do not compose symphonies to honor terrific strength or recognize arduous weight training. No: we celebrate wit, daring, bravado, honesty, and faithfulness qualities of character, not of arbitrary genetic advantage. Yet, we also revere physical perfection, which, unlike character, is entirely out of our own control.

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Or is it? As long as there has been henna, rouge, chalk, flax, oil, or even water, women have scrubbed, stained, stretched, and sculpted their bodies to fit the beauty conventions of their time. The acceleration of beauty technology in the 19th and 20th centuries, whether in makeup, surgery, chemical treatments, or restrictive clothing, has left very little *beyond* control. Today, it seems that beauty can be earned, not simply inherited, and, suddenly, that "there are no ugly women, only lazy ones" (Helena Rubinstein, qtd. in Riordan, 2004:vii). Technology has truly freed women from the shackles of their genetic heritage. But it has also made them slaves to constant striving. The democratization of beauty did not make attaining it easy. If science has made each woman more beautiful, it has also raised the stakes for all women.

The Victorian-era corset perfectly exemplifies how a oncesensible preference for health and vitality was exaggerated by technological progress into an irrational obsession. Indeed, no other single physical characteristic can compete in importance to the stylized "hourglass" figure of the human female. Nose length, hair luster, neck arch, nail sheen—these are minor considerations next to the endless quest for the perfect figure. And though fickle fashions have, at different times, prized emaciated bones, wiry muscles, voluptuous bulges and slender curves, the preference for comparatively small waists and wider hips has remained constant. This 0.7 to 1 waist-to-hip ratio is itself a kind of "Golden Number," albeit one that few women actually possess (Etcoff, 1999:194). The whalebone and steel corsets of the 20th century are perhaps the most infamous technologies dedicated to this pursuit. And they have generated a veritable cottage industry of debate. Everyone from evolutionary biologists to contemporary feminists has sounded off on the origins of the comically tiny waists of the Victorian era. But the answer to this phenomenon lies somewhere in between their theories: corsets were the inevitable consequence of a mismatch between the aggressive pace of technological development and evolutionarily stagnant human preferences.

Though my analysis it is unabashedly hetero-normative, partly to reflect the cultural dominance of strict gender roles in the corset's time, and partly to simplify my own task, it speaks to questions of self-image that all women face no matter what their sexual orientation. And though it is focused narrowly upon the female sex, ignoring men altogether, it speaks to the endless struggle for self-improvement and rejection of natural boundaries that all humans face no matter what goals they set for themselves. What is the cost of the endless pursuit of perfect beauty, aided by all the imperfect arts that human progress has afforded us? And if our imperfect intuitions lead us to reach beyond the natural into the realm of fetish, can we accept the alternative of ceasing to strive altogether?

t began innocently enough. According to the Oxford English Dictionary, the first recorded men- tion of the word "corset" is a 1299 account of the fashions at the court of King Edward I (qtd. in Etcoff, 1999:194). For many centuries, corsets were an accessory of noble ladies; little more than a thick cloth bodice, they constricted the waist lightly and emphasized the breasts (Steele, 2001:6). But with the first true corsets, made of "whalebone bodices" in the early sixteenth century, came the first cases of tight-lacing, the process by which "young

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Virgins...thinking a Slender-Waist a great beauty, strive all that they possibly can by streight-lacing themselves, to attain unto a wand-like smallnesse of Waste [sic]" (Bulwer, 1653:338-339).

Tightlacing in this era was not yet extreme, primarily because the technology was too crude for it to be. As a supporting material, whalebone was weaker than its successors, and susceptible to breakage; therefore, stays were not quite formfitting and left more space for the expansion of the diaphragm. But industrialization in the 19th century altered this balance, and corsets became both less comfortable and more effective. Metal eyelets, patented in 1825, made it possible to lace them more tightly. Cording and light boning in the 1830s made them stiffer and easier to shape (Riordan, 2004:177). Steam-molding after 1869 allowed corset-makers to generate standardized, ideal figures (189).

At the same time, the onward march of mass-production empowered middle-class women to take part in corseting as never before (180). Suddenly, corsets and their complements farthingales, panniers, crinolines, and bustles—were everywhere, cinching the waist, flattening the stomach, plumping the breasts, augmenting the hips, exaggerating the rear, or otherwise molding the typically soft, sedentary body of the middle- or upper-class young woman into an impossibly curvaceous living doll. From childhood, these girls were quite literally shaped by the demands of beauty, trained like young saplings in the steel cages of cultural expectations. And by the turn of the 20th century, corsets had become so common that "physicians began to believe women came that way" (Hatfield and Sprecher, 1986:231).

Of course, when it became possible for ordinary women to purchase corsets that only the wealthiest could once afford, what used to pass for extraordinary would no longer do. Standards would have to rise, and they did: at the height of the corseting craze, the most fashionable women reportedly had their lower five ribs removed (231). (It is important to note that scholars continue to disagree on whether or not women removed their ribs. Steele most recently questioned the bases for this information; however, it remains part of conventional wisdom about the era.) While even the women of the time acknowledged that the "healthy average waist" was not less than 26 inches (The Family Herald, 1848), most women restricted themselves to 23 or 25 inches, and the social queens of the time boasted of 18-inch waists or even smaller (Steele, 2001:88). Technology made the impossible ordinary, and, unchecked, the human tendency for excess took over. Corsets had the power to harness the wildest fantasies of the imagination, and were taken up by tightlacing fetishists seeking waists of seven- teen, sixteen, or even fifteen inches. Even ordinary women often reduced their waists far beyond the 0.7-to-1 ideal (92).

It is not that the health dangers of corsets were not known at the time—far from it. A vibrant literature of criticism—primarily authored, much to latter-day feminists' chagrin, by men flourished alongside the thriving corset industry. Under the penname Luke Limner, illustrator and essayist John Leighton wrote the most famous of these critiques. *Madre Natura versus the Moloch of fashion* blamed the corset for a litany of problems from reduced fertility to fainting fits, and portrayed the women who wore it as victims who had "escaped from death [and] to this day bear evidence ... in the form of scars where the flesh has been seared, and contracted joints where the bones have been broken" (Leighton,1874:12).

Understandably, these images horrify the modern reader. Corseting appears monstrous, perverse, inhuman. And yet it was a cherished and common practice until only a century ago. How could it have happened?

he emerging field of evolutionary psychology provides some answers. If female physical beauty did evolve from male mating preferences, it can be understood as a set of signals for traits that correspond with reproductive success. Those traits include: fertility, or whether a woman is hormonally balanced and a fully developed female; health, or whether she is likely to carry her child to term and survive birth; nulliparity, or whether she has previously undergone pregnancy; and youth, or how long she has been ovulating past earliest child- bearing age. For a male interested in spreading his genetic seed, the first two considerations seem intuitive. The last two are trickier. Not only would nulliparity and youth favor a woman's direct reproductive success, measured in the likelihood that her fetus would survive (Fretts et al., 1995), they would have even greater importance to the prospective father: without previous offspring, his own would face less competition for its mother's attention; like- wise, a younger mate could offer a monopoly on all childbearing years and therefore both security and abundance in reproductive opportunities. A vibrant psychological literature is predicated on exactly that assumption (Kenrick and Keefe 1992).

Recent evidence shows that the signal theory of beauty holds especially well with respect to perceptions of the female figure. Indeed, while there is significant historic and cultural variation

in perceptions of ideal body *weight*, the ideal body *shape* is consistent across cultures and time periods (Etcoff,1999:192). This shape is defined by the ratio of the waist to the hip: in men, it is about 0.9-to-1; in women, it is 0.7-to-1 (191). This is the "Golden ratio" that defines the great beauties of pop culture today: we see it in Audrey Hepburn and Marilyn Monroe; in supermodels, *Playboy* bunnies, and Miss Americas. Despite substantial variation in height, weight, style, and audience, their waist-to-hip ratios all fall between 0.68 and 0.72 (193). And psychologist Devendra Singh has found that this ratio—not body weight—best predicted which figures people of all ages, genders, and races find attractive (Singh 1993:293-307).

Crucially, the 0.7 waist-to-hip ratio manages to predict each of the four traits essential to reproductive success. With respect to fertility and health, a 1993 *British Medical Journal* study found that fat distribution was more important than age or weight to a woman's likelihood of conceiving by in vitro fertilization (Zaadstra, 1993:484-487). And with respect to youth and nulliparity, it is obvious from the phrase "girlish figure" that the wasp waist is a badge of adolescence: "ephemeral … disappear[ing] early in pregnancy and hard to regain" (Etcoff, 1999:191). At first glance, then, the logic of the waist-to-hip ratio seems to validate corseting entirely. To an average woman of ratio 0.8 or 0.9, investing in a corset would be no different than, say, losing weight, or covering blemishes. The golden ratio would be a perfectly natural goal to strive for—a standard of health and fertility as obvious as a target BMI or clear skin.

ut how natural are our ideals? Some seem convincingly so. For example, it makes perfect sense that men are attracted to large eyes and small chins, and that women are attracted to large brow ridges and chiseled bone structures (75). The former indicates low and the latter high levels of testosterone. Likewise, the nearly universal attraction in both sexes for healthy muscle tone, clear skin, and symmetrical features has a clear basis in health and vitality. But the exaggerations embraced by breast enlargement surgery and competitive bodybuilding, as well as the caricatures we portray in manga and airbrushed photos, reflect an uneasy scientific fact: human sensors of beauty are not perfectly tuned to anatomical realities (26). Some 'natural' preferences may not be so natural after all.

Indeed, this is precisely what thinkers of the third-wave feminist movement of the 1990s insisted. They argued that beauty was not a biological fact at all. With Naomi Wolf's blistering critique of "the beauty myth" as its manifesto, that school declared that female beauty was solely a social construction perpetrated by men: a "myth...claim[ing] to be a celebration of women...[but] actually composed of emotional distance, politics, finance, and sexual repression. The beauty myth is not about women at all. It is about men's institutions and institutional power" (Wolf, 1991:12-13).

Wolf's logic is compelling in light of the corset's symbolic meaning for the women who relied on it. Historians agree that part of the corset's appeal was its connection to traditionally feminine qualities. Stays represented virtue, chastity, and good breeding (Hatfield and Sprecher, 1986:232), while "an unlaced waist was regarded as a vessel of sin" (Rudofsky, 1972:111): coarse, unrefined, and promiscuous. It is impossible to imagine this symbolism with- out a patriarchal context in which female sexuality is suppressed and controlled at the whims of men. And

it takes little imagination to under- stand a sexual entrapment device, used almost entirely by women with social aspirations, as a manifestation of broader chauvinist control.

Wolf saw this control as a fundamental pattern in Victorian society. She blamed physicians in particular for teaching women that they had to be saved from their own vitality, sexuality, and physical freedom. "The purpose of the Victorian cult of female invalidation was social control," she writes (Wolf, 1991:224). And to some extent, texts from the time show that the "cult" was real:

It is true, the corset impairs the [naked] personal attractiveness of the wearer, but the loss suffered on that score is off- set by the gain in reputability which comes of her visibly increased expensiveness and infirmity (Veblen, 1911: 172).

Apparently, by Thornstein Veblen's time, the beauty of the corseted waist was not wholly or even predominantly physical quite the opposite. If women had once worn corsets to *appear* more beautiful, by the early 20th century they were doing so to be more beautiful—that is, the corset itself became a signal of reproductive success, symbolizing the things that beauty itself is supposed to represent. Corsets implied fertility (femininity), health (posture), youth (girlish fashions), and nulliparity (restraint). Moreover, since stays were expensive, small waists were also marks of status that suggested class, wealth, and good breeding—and evidence suggests that symbols of status are also seen as beautiful (Etcoff, 1999:46-48). Eventually, women may have corseted for the corset's own sake; an undergarment once

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used to cheat age and genetic misfortune had become an inescapable social norm.

s accurate as Wolf is that corseting was at least in part a cultural construction, it would be a mistake to blame the phenomenon wholly upon men, as she does. Valerie Steele notes in Corset: A Cultural History that it was "older women, not men, [who] were primarily responsible for enforcing sartorial norms...the cultural weight placed on propriety and respectability made it difficult for women to abandon the corset, even if they wanted to" (Steele, 2001:51). Wolf would likely reply that it was men who maintained control by the very fact that it was men who these women strove to impress, whose perpetration of the beauty myth created such norms in the first place (Wolf, 1991:59). But that answer is problematic for two reasons. First, it ignores a crucial complication: even feminists and female physicians at the time were conflicted about corseting, with many arguing that reasonable lacing was consistent with feminist ideals (Steele, 2001:59). Second, it tells us only the obvious-that women sought to impress men-and tells us nothing about why they employed corsetry in particular to reach that goal.

For an answer to that question, we must return to the work done by evolutionary psychologists, whose work indicated that the 0.7-to-1 waist-to-hip ratio was a valid measurement of both beauty and reproductive success. It is also through their work that we may reconcile the popularity of corseting with our modern intuition that it was dangerous, destructive, and fundamentally irrational. They reveal that what seems obvious now—the ridiculous heights that corseting assumed—might have been less apparent after centuries of habituation to evershrinking standards of waist size.

Psychological evidence suggests that humans are susceptible to *hyperstimuli:* we react more strongly to exaggerations of things that have proven through natural selection to be useful, because our perception of excess is not finely tuned. The power of hyperstimuli is most obvious when it comes to food. We love salty, sweet, fatty foods much more than a healthy diet requires; an understanding of hyperstimuli suggests that we do so because our bodies evolved in a time when things rich in salt, sugar, and fat were rare. For a hunter-gatherer facing starvation on a daily basis, the very idea of modern diseases like obesity and heart disease would have been patently absurd (Pinker, 1997:195).

What is true about our tastes in food is also true of our tastes in each other: in experiments on facial attractiveness, researchers have discovered that both hyperfemininity in women (Perrett et al., 1998) and hypermasculinity in men (Thornhill and Gangestad, 2008) are preferred over average, healthy proportions; women invest in lip injections, and men in shoulder pads for that very reason. (Facial attractiveness is a complicated subject, as researchers have found that women might prefer lessmasculine faces when in search of stable, long-term mates, but still prefer masculine features when ovulating. Randy Thornhill and Steven Gangestad argue that this strategy enables women to maximize their reproductive success in terms of both resources, through a faithful partner, and genotype, through a desirable but unfaithful mate.) Preferences for waist-hip ratios could have evolved in the same way: since wasp waists are naturally uncommon in women, the smallest waists were the most reproductively effective, and there would be no reason to evolve a

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precise sense of what was *too* narrow. Equipped with only a general attraction to small waists, then, people would be vulnerable to respond to hyperstimuli, which would only become more extreme as previously extraordinary waists became everyday. Hence the impossible .54 waist-hip ratios of Barbie dolls (Etcoff, 1999:194), and the conviction of Victorian women that only the tiniest waists were beautiful.

That is not to say that we have no awareness of the absurdmerely that is not so finely tuned. Few of us will eat spoonfuls of sugar, and even fewer will swallow pure lard; likewise, women eventually jolted to their senses at the sight of Neanderthal-like faces, and Victorian men often complained that extreme tightlacers' waists were grotesquely small (Steele, 2001:106). But we do willingly eat brownies and crème brulé-and our love of Big Macs and sodas is largely to blame for the modern obesity epidemic. Likewise, to the people of the corseted age, waists that were merely quite small-say, 22 inches in diameter instead of 18-were unquestionably "elegant and graceful"(107). Between their strong innate preference for the golden ratio and their weaker alarm system for the absurd, there could be no contest: in all but the most ridiculous cases, a smaller waist appeared more attractive. Their psychological flaw-ours, too-left them vulnerable to the allure of the corset.

And that flaw functions as the missing link in traditional feminist arguments dismissing the corset as a tool of female repression and patriarchal control. Beginning from the assumption that naturally small, uncorseted waists are already beautiful—an assumption the Victorians themselves shared (92-93)—it becomes possible to understand how corseting could have gone to extremes without appealing to radical pronouncements

on male dominance or female irresponsibility. Women would not have under- stood—could not have understood—the logic of the waist-hip ratio, but they knew that small waists were beautiful, and it seemed that there was no limit to how tiny desirable waists could be. Why not strive for ever-smaller ratios? Like large biceps among men, small waists would have gained cultural importance to Victorian women as symbols of social status *because* of their natural significance. Natural preferences provided an impetus; cultural symbolism followed. And eventually corsets gained enough normative power to at least give the illusion of having entirely replaced the natural symbolism of the Golden ratio.

B y the turn of the 20th century, corseting had become a social institution. Within twenty years, however, the practice had all but disappeared. Its precipitous fall can be traced in the medical literature to the turbulent first decades of 1900s, when criticism of corseting grew ever more strident and mainstream. *The British Medical Journal* was typical of the medical community when it argued in a 1903 book review that "corsets should be abandoned, and women should not even be measured for rational clothing until some days after discarding them, so that the figure should have had time to reapproached the normal" (BMJ, 1903:1003).

But medical criticism had existed alongside the corset for its entire history, and its surge is better understood as a symptom of the corset's decline than as its cause. After all, it was self- styled medical experts who, declaring existing corsets unhealthy, created the "straight front, S-curve "health corsets" in the late 19th century that constricted women's bodies far more painfully than "unhealthy" corsets ever had (Riordan, 2004:194). Simply put, previous corset abolitionists often had sexist and medicallyinaccurate agendas of their own. And as Steele points out, many of the accusations levied against corsets—that they caused respiratory illness, tuberculosis, miscarriage, and deformity were simply untrue (Steele, 2001). The corset did not fade away because it was unhealthy: we recognize that it was unhealthy because it has, by now, faded away.

Instead, the corset declined because its cultural-normative implications became untenable to women claiming social and political liberation-and because technological innovation gave them substitutes that served just as well. Its disappearance mirrored the rise-and fall-of bloomers, the advent of female suffrage, and the spread of now-incontrovertible ideas of female athleticism. Yet, none of these reasons would have been enough without a technological substitute for the corset. Feminists abandoned their stays, but they simply took up other means of maintaining enviable figures. Dieting, exercise, self-conscious posture (143)-these are certainly superior approaches for their reliance on healthy effort, not self-mutilation. Yet, many a 20thcentury woman shrugged off her corset only to pull on a Lycra girdle (Riordan, 2004:201) or slide onto an operating table for liposuction. Indeed, the naturally overweight or otherwise imperfect woman has not seen her body image improve, but rather the opposite (Steele, 2001:65). With the shortcut of exterior stays stripped away, she finds herself facing an internal corset of eating disorders and plastic surgery.

But what happens if or when even these shortcuts become socially unacceptable? Granted, the corset's unnatural stranglehold upon women's figures and men's imaginations is

hard to swallow. It was then what plastic surgery is now and what genetic treatments may one day become: proof, in Leighton's words, of "the abject littleness and pitiful fatuity with which, even in an assumed condition of high culture, the Human Mind will bow to the tyranny of an ideal, worshipped Despot of its own creation, even to the subjection of body and soul" (Leighton, 1874:25). But it was also liberating. For women with flawed bodies, a corset was a shield; for the overweight, it was the great equalizer that gave them an advantage over smaller women without fat to mold (Steele, 2001:64). The corset trapped women into a spiral of ever-smaller waists and ever-rising standards. But the corset also had this promise: "Those who were not born to beauty could now purchase it" (Riordan, 2004:180). Without these technologies, another equalizer, another means of striving, will have been eliminated; the hierarchy of the beautiful will have been restored.

The corset serves as testament to a truth that still holds today. Women have always faced a devil's bargain between two kinds of oppression: they may either be slaves to natural endowments, resigning themselves to their luck in the genetic lottery, or they may be slaves to choice, resigning themselves to the ceaseless pursuit of impossible objectives and constant competition with each other. Yet, "invention ... changes what is possible" (Riordan 178), and the march of technological progress has made the second option both more tempting and more dangerous. After all, "we are products of evolution and cannot change instincts...It may be difficult to change human nature, and easier to start by fooling her" (Etcoff, 1999:74). Today, some women do refuse to fool nature. A significant minority proudly

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reject makeup, and even more scorn surgery. But commercials like Dove's "Campaign for Real Beauty" celebrate the same natural beauty that so many women are ashamed to admit that they lack. They are left with a choice that is hardly a choice at all: to revere the arbitrary or chase the nonexistent.

As with too many important problems, there is no right answer. As far as we-as a sex, as a society, as a species-are willing to tolerate ambition, obsession, and self- destruction, technology holds great promise as a way to free us from the vagaries of chance and our natural limitations. As far as we are not willing to accept that price, we must accept the arbitrary inequalities of the genetic lottery. Corseting represents a single example of human ingenuity gone awry, but the same theme plays out in other technologies, other situations, and other goals. Beauty, intelligence, strength, humor, optimism, sociability: every quality worth having comes more easily to some than to others. Whether we choose to fight that tragic fact about our species will determine the narrow path future technologies navigate between the palpable and the unearthly, the ordinary and the extraordinary, the appallingly callous and the heartbreakingly human.

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