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The Cosmeceutical Face: Time-Fighting Technologies and the Archive

By Grayson Cooke

Introduction

In this paper I wish to discuss the implications of cosmetic "anti-aging" technologies and their marketing discourses for an understanding of the human face as a kind of archive, as a repository of time and memory. I will do this in reference to the work of Bernard Stiegler and Jacques Derrida, amongst others. While neither Derrida nor Stiegler talk at any length about the face or about cosmetics, their writings on the archive, temporality, and technology as "tertiary memory," illuminate the questions that revolve around the anti-aging industry's relation to time and the face, in a particularly appropriate manner. With reference to these writings, I will argue that cosmetic anti-aging technologies - frequently understood and marketed as "cosmeceuticals" - constitute the face as an archive at the same time that they work to limit the functioning of the face as an archive. This constitution of the face as archive occurs in the context of the beauty industry and social expectations about gender, youth and beauty; in the context of medical and technological developments related to the anti-aging industry; and in relation to real-time tele-technologies and the technologies of memory, which are intrinsically related to temporality and archivization. In an era characterized by, on the one hand, a massive industry of anti-aging biomedical and cosmetic interventions into the effects of time and aging on the human body, and on the other, by the profusion of digital technologies of real-time reportage and recording and information storage and retrieval, and by the concomitant "crises" of format obsolescence and archival preservation brought about by the speed of development and dissemination of such technologies, cosmeceuticals, ironically, preserve the face by not preserving it.

The anti-aging industry today is a vast, multi-disciplinary, multi-sector enterprise, spanning the medical gamut from "high end" technoscience such as stem-cell research, gene therapy and nanotechnology, through dietary supplements, cosmetic surgery and cosmeceuticals, to comparatively "low end" lifestyle products such as the erectile dysfunction treatments Viagra and Cialis (Neilson 181; Mehlman et al 305; Mykytyn, "Anti-Aging Medicine" 16). While an interest in prolonging youth has been an element of science and medicine for many years (as have fantasies of immortality haunted religious traditions the world over for thousands of years), the growth of the industry in recent years is frequently understood to stem from growing awareness of population aging, which is a socio-cultural-economic reality facing most Western countries (Neilson 163). As a function of decreasing fertility rates, increased life-expectancies through biomedical and technological developments, and the baby-boom of the post-War years, Western countries are faced with a future in which populations are skewed towards an increased number of non-working retirees funded by a decreased number of working taxpayers (Neilson 163). As governments worldwide push back retirement ages to reduce the draw on pension and social security funds and to ensure the continued growth of superannuation funds , the anti-aging industry functions as a potential salve, promising to ease the physical pain and visible effects of aging, and thus to "optimize" individual "functionality" through what is now an extended working and retired life (Mykytyn, "Medicalizing" 313).

Anti-aging cosmetic treatments inherit this situation, as well as the more obvious narratives of youth and beauty – traditionally female youth and beauty, although men are increasingly part of the target demographics for these products – that fund the cosmetics and "appearance" industries more generally, and that place pressure on people to maintain a youthful appearance as long as possible. Antiaging cosmetic treatments focus on ameliorating the visible appearance and/or

effects of aging, for example the reduction of collagen and moisture in the skin leading to loss of skin elasticity, and the appearance of wrinkles and lines in areas of the face subject to repeated facial expression. While traditionally such effects were minimized by surgical interventions such as face-lifts, increasingly, this is done via the production, marketing and dissemination of products that have become known as "cosmeceuticals," now a \$6 billion market in the U.S. alone (Kawalek). These are products that are frequently endorsed by doctors, that are underpinned by an aura of biotechnology and technoscience, that contain "active ingredients" said to affect skin structure, and that appear to combine the effects of cosmetics with the functionality of pharmaceuticals (Kawalek). Cosmeceuticals claim to "reduce the appearance of fine lines and wrinkles" by either stripping off outer layers of skin (e.g. using alpha-hydroxy-acids) or by plumping up the skin where lines appear and stimulating collagen production (e.g. using copper peptides, vitamin C and retinoic acids). Even a product like Botox, which is not a cosmetic cream but an injectable derived from botulinum toxin, and can only be injected by medical doctors, broadly fits the cosmeceutical moniker as it is an essentially medical product originally used "off-label" for cosmetic (and short term) effect.

In a general sense, the anti-aging industry is dedicated to the notion that the effects of aging, firstly, are considered to be "painful and costly both individually and societally" (Mykytyn "Medicalizing" 315), and secondly, can be ameliorated via medical, technoscientific, and cosmetic intervention. This notion is underpinned by what are frequently moral arguments, wherein the simple fact of knowledge of the experience of aging is taken as responsibility to do something about it. For example, Aubrey de Grey, Cambridge "longevity" researcher and editor of the anti-aging journal Rejuvenation Research, argues that failure to follow programs like his own "Strategies for Engineered Negligible Senescence" (SENS) anti-aging program is tantamount to "being responsible for the deaths of over 100,000 people every day" (de Grey, in Mykytyn, "Anti-Aging" 19). This is of course a completely spurious argument, a kind of bastardization of a Levinasian or Derridean "absolute responsibility" resolved down into the simple politics of guilt, a politics that rides roughshod over questions of socio-economic difference, or the differences between citizens with the capacity and freedoms to want to live longer, and citizens hardly even able to live as such. Nevertheless, such arguments are buttressed by narratives of technological progress and perfectability that are built into Western culture - what Bernard Stiegler, following Bertrand Gille, refers to as the "permanent innovation" of the industrial system (Stiegler, Technics 15).

Likewise, the biomedicalization of aging supports the same logic, wherein what had previously been seen as "natural" in the sense of inevitable or unavoidable comes to be pathologized as a "problem" or even a "disease" available to the medical gaze, and open to a medico-technological fix. As Cardona notes, while social, economic and behavioural factors are understood to affect the aging process considerably, the biomedicalization of aging has become the predominant discourse, "influencing research, policymaking, and views about aging and science itself" (Cardona 221). Given that biomedicalization does nothing to avert the fact of time's passing and the inevitability of death, however, what the pathologizing of aging represents – what the anti-aging industry as an exercise of *capital* is founded upon – is essentially the promise of some kind of absolute market saturation, a captive audience and market without end.

At the same time, however, the biomedicalization of aging complicates questions of "humanness" and "nature." In order for it to be "natural" to intervene in the biological process of aging, technics must be incorporated into the "natural." As Mykytyn notes, anti-aging debates are frequently underpinned by a "hierarchy of nature" which "ranks the human drive to overcome biological constraints as more definitive of humanness than the natural process of aging" (Mykytyn, "Medicalizing" 320). Underpinning this hierarchy of "nature," however, is clearly the notion of technics, because technics is the overcoming of the biological, it is humanity operating "outside itself." Thus, the argument about the naturalness of intervention is also an argument about the naturalness of technics; it is human to use technics as a prosthetic, technics is determinative of humanity, and in the context of anti-aging prognostications, modern technics is increasingly determinative of the *future* of humanity, and of the future as such.

Bringing the biomedicalization of aging as "disease" and the application of technology to "cure" this disease together with the notion of permanent technological development, is the concept that de Grey has termed "actuarial escape velocity" (de Grey 725). With this concept, de Grey theorizes the potential for 4-digit lifespans on the basis of projections of ever-increasing developments in medico-techno-scientific anti-aging therapies. He outlines a scenario in which

anti-aging therapies result in a 30% increase in healthy life-span, giving a person an extra 20 years to live (de Grey calls this "an eternity in science"), during which time anti-aging therapies would develop further, bringing another 30% increase in healthy life-span, "and so on ad infinitum." Thus, "an individual's remaining life expectancy is affected by aging and by improvements in life extending therapy in a way qualitatively very similar to how the remaining life expectancy of someone jumping off a cliff is affected by, respectively, gravity and upward jet propulsion" (de Grey 725). Escape velocity is achieved, in this scenario, when "we are finding out and fixing the things that go wrong with us faster than we are encountering them" (de Grey in Mykytyn, "Anti-Aging" 14).

De Grey's theory is relevant and fascinating for a number of reasons, not simply because it makes for great science-fiction. Firstly and most obviously, it fits firmly within the tradition of "permanent innovation" and of technological perfectability that we have already noted as an underpinning project in the antiaging industry. Secondly, it is premised on an absolute faith in technoscientific development as an ongoing, linear process of innovation within a concrete ideological tradition; paradoxically, this is faith-based "science." That is, it assumes an ongoing positive valuation of the goals of anti-aging research on the part of future researchers, a future in which large shifts in research priorities and regimes of truth - something the history of science is littered with - do not in fact occur. So in a way it is a future which is not in fact a "future," as that which cannot be pre-determined, but an endless extension of the present. Most interestingly though, actuarial escape velocity represents a complex and aporetic collapsing of time into speed, and indeed an "escape" of temporality as it is experienced. What happens to time when we are "fixing the things that go wrong with us faster than we are encountering them"? In some way this is to "cross the time barrier," it is to go faster than one's own time, the time of one's biology and the effects of time on the body, and thus it is also to cross an existential barrier wherein human existence is in no way a matter of biological aging but a question, fundamentally, of *technoscientific making* and temporalization.

Real-Time Technologies

Time and speed, then, are central questions for the anti-aging industry. For Bernard Stiegler, time is also a central question for the constitution of the human and Being as such, but also for the experience and developments of the contemporary world and modern technics. Stiegler takes from Heidegger the notion that Being is fundamentally temporal. For Heidegger, Dasein – the "entity which we are ourselves" – is temporal in the sense that it can only "be" in relation to what has been, to what it inherits, and it is only on the basis of this "already there" that it is possible to anticipate and thus be in the present and the future (Stiegler, *Technics* 5). The "already there" is inherited, it is "outside" of me, it is a past which is not my own, and is thus external, prosthetic, and technical:

The already-there is the pre-given horizon of time, as the past that is mine but that I have nevertheless not lived, to which my sole access is through the traces left of that past. This means that there is no already-there, and therefore no relation to time, without artificial memory supports. (Stiegler, *Technics* 159)

The relation to time that constitutes Dasein is a function of "artificial memory supports," or what Stiegler elsewhere refers to as "tertiary memory." Everything outside of me – technology, language and writing together understood as technics – is a memory support to the degree that it serves as a carrier for culture and knowledge, but it is also the determinant of a relation to time because time arises only in the difference between the now and the already there, and in anticipation of a death which is radically unknowable, in being-toward-the-end.

It is on the basis of this understanding that Stiegler develops the theory of "epiphylogenetic" evolution, a palao-anthropological analogue to the Derridean notion of "originary technicity," whereby epiphylogenesis represents the evolution of the genetic via the epigenetic, and thus the codetermination of the human and the technical. The human is constitutively technical; this is the argument Stiegler advances in *Technics and Time 1: The Fault of Epimetheus*, where, building on the work of André Leroi-Gourhan, Stiegler sees tool use as a question of epigenetic memory influencing genetic development: "Flint is the first reflective memory, the first mirror. At the dawn of hominization, that is, of corticalization,

the epiphylogenetic vector becomes flint as that which conserves the epigenesis" (Stiegler, *Technics* 142). Thus for Stiegler, technics is constitutively involved in the very process by which humanity becomes what it is; humans are not simply tool users but are creatures *of* the tool because it is the tool that conserves successive epigeneses, operating as tertiary memory and stimulating cortical development over thousands of years. The development of tools likewise implies the development of consciousness and a relation to time, where the tool is developed in anticipation of future use, and serves as exteriorized memory.

If technics as tertiary memory and the already-there is constitutive both of the human and temporality in the palao-anthropological context, for Stiegler, this coconstitution comes to the fore under modern technics, and specifically, with technologies of "real-time," posing the question of the relation of speed to time. At the beginning of *Technics and Time 1*, Stiegler refers to Bertrand Gille's notion that since industrialization the West has operated on a logic of permanent innovation. On the basis of this logic, Stiegler suggests that we may now be in a situation in which "technics evolves more quickly than culture" (Technics 15). In making this statement, Stiegler in part invokes a tradition of technology-criticism focused on the idea of "technology out of control." This tradition marries 19thcentury fears of technological hubris, typified by Mary Shelley's Frankenstein, with the work of theorists such as Jacques Ellul and Paul Virilio, who see technology as accidental and contingent, something trending towards increased automation, something that develops contrarily to guestions of human "control" and that develops faster and more unstoppably with every passing day. Indeed, Virilio is a vital figure here, given that in 1977's Speed and Politics he argued that speed - typified by the technologies of modern warfare - had become the new vector of existence for modernity. Derrida made a similar observation in 1984, when in the paper "No Apocalypse, Not Now" he spoke of the Cold War arms race as a course de vitesse, a speed race, "this speed race in search of speed" (23). Speed, here, is both means and end, symbol and symptom of technological progress.

It is this notion of speed Stiegler invokes when he asks whether, now, we are in the process of "breaking the time barrier," and he asks this on the basis of the development of technologies of real-time computing and media delivery, technologies that "distort profoundly, if not radically, what could be called 'event-ization' as such, that is to say the taking place of time as much as the taking place of space" (*Technics* 16). Time is "temporalized," it is variable, it "takes place" not as a function of an "overarching, stable, homogenous framework in which things happen," but as a function of real-time technologies (Gere 54). The possibility of real-time allows that speed, rather than being a relative measure of movement reliant on time and space, might in fact be the constitutive element of time and space, and that under real-time computing and information-dissemination the very status of the event – that which *happens* at such-and-such a time, that which cannot and must not be *programmed*, as Derrida would suggest, in order to remain an "event" as such – is called into question.

Stiegler's theory of technics as tertiary memory is simultaneously a theory of the archive, technics as an ever-growing storehouse, the material/ideal manifestation and repository of human knowledge and experience. Moreover, under real-time computing and information dissemination, and the concomitant development of an unimaginable array of technologies for data and media storage in public and private, domestic and commercial settings, we find ourselves surrounded by technologies of the archive as much as technics as the archive. But archives are about more than simply the storage of information, of records of the past, of events. As noted by both Derrida in Archive Fever, and Foucault in The Archaeology of Knowledge, the archive is always also a question of the processes and technologies of archivization, the dictums governing what enters the archive, how it enters the archive, how the archive is structured, how it is ordered. For Foucault, the archive is better expressed as the logic of archivization. That is, the archive is first and foremost "the law of what can be said, the system that governs the appearance of statements as unique events" (Foucault 129). If what enters the archive are statement-events, things said and things that happen, then the archive is "that which, at the very root of the statement-event, and in that which embodies it, defines at the outset the system of its enunciability" (Foucault 129).

The archive conditions the possibility of archivization. It is also the system of ordering, of ensuring statement-events are "grouped together in distinct figures, composed together in accordance with multiple relations, maintained or blurred in accordance with specific regularities" (Foucault 129). Derrida concurs, tracing the archive back to the *arkhe*, the commencement and the commandment, and to the word of the *arkhon*, the ruler (*Archive Fever* 1-2). The *arkhon* is the one who

rules, who commands, and who orders in the sense both of giving-an-order and of putting-in-order, of "consignation," of "gathering together signs" (*Archive Fever* 3). Crucially, Derrida notes that it is the technical structure of the archive that determines what is archivable in the first place (and here "technical" may mean both the "laws" Foucault refers to and the physical technology of the archive, the recording apparatus and its internal structuring): "The technical structure of the *archivable* content even in its very coming into existence and in its relationship to the future. The archivization produces as much as it records the event. This is also our political experience of the *archion*, the ruling and ordering, is built into the very structure of the archive; strangely panoptical, it watches over itself.

The structure of the archive determines the archivable content in its very coming into existence: this is also our political experience of the so-called news media. News, today, is quite obviously one of the centres, both technologically and experientially, of the possibility of real-time. Under the demands of real-time reportage, real-time technologies collapse time into speed and problematise the status of the event, but they also raise questions about the archive, about what the archive becomes under real-time technologies, how it can possibly "keep up" with such socio-technical pressures. Real-time technologies are a function of a global mnemotechnical system that produces events at the same time as it records them; events occur in their production/recording, as Derrida argues, and thus, in a way, everything and nothing ever "happens" any more. This system is both the purveyor of and the solution to the global demand for information up to the minute, the demand for live-media reportage, the demand for the dissemination of information to the myriad systems of recording, analysis and information storage; converged newsrooms, embedded journalists, 24/7 news channels, RSS feeds, the blogosphere, particle-accelerations, super-collisions. Events spawn events (archives spawn archives), one upon the other, and the experience of these events, the challenge put to the world, is one of remembering/forgetting, of remembering defined always against and always indebted to forgetting, of the subject called forth daily to render up their infinite capacity to forget. This is archive fever, Derrida's mal d'archive, the repetition compulsion and death drive residing right in the heart of the archive and the drive to archivization, its necessary corollary and beneficient threat. The challenge, under this deluge, this anarchiving archive, this "information bomb" in Virilio's phrase, is less a question of "managing" information and more a question of an infinitely parcellized attention; of sorting, of sifting, of filtering, of storing and making available, but also, and crucially, of finding value, of actually caring, which would also be to anticipate future action in the name of what one cares about - if one could even remember what that was.

Alongside this challenge, then, this challenge of the parcellized present, is inevitably the question of the future - anticipation. What of the future of the archive, when its very constitution is determined by its technical structure, which is also the drive to real-time? For Derrida, the archive can only exist for the future, as a promise, and particularly as a promise of democracy. While "effective democratization can always be measured by this essential criterion: the participation in and the access to the archive, its constitution, and its interpretation" (Archive Fever 4), it is in the future - in relation to the future that such democratization will be tested. But is there such a thing as the future under real-time? Doesn't everything (and thus nothing) just happen at once? To return to Stiegler's question of what it would mean to break the time barrier, and assuming that such a thing is in some way thinkable (Stiegler calls it "the unthought" - Technics 15) but also in some quarters desired, a temporal overcoming against which all other speed is measured: if we currently exist on THIS side of the time barrier, this side where it still seems possible to archive, to make sense and use of the archive, even if it grows exponentially on a daily basis and even if we live with the constant aporia of the possibility of real-time, what is it like on the OTHER side? What happens after the "shock" that would result from such a shift? (Stiegler, Technics 15). On THAT side, where speed exceeds time itself, there is no longer any future or past, and there is thus no archive, no possibility of the archive; this is the limit of archivization. If the archive exists to record "events," things that happen, and if the archive's technical structure also defines what is recordable, and if the technical structure renders event production and recording simultaneously in "real time," then there IS no event as a thing that just "happens" and nothing in fact enters the archive at all, the archive being rendered nothing more than a nostalgic fantasy, a diversionary simulation, a tactical accident of the will to forget.

Time-Fighting Technologies

How do these issues relate to cosmetic anti-aging technologies and cosmeceuticals? It may seem like an undue "fall" to the quotidian, to read contemporary culture's archive fever and crisis of time and memory via facecreams and Botox injections. And yet the questions asked by Stiegler and Derrida of tele-technologies – of time and temporalization, of memory, archivization, and of the codetermination of humanity and technics – are the same questions that haunt the anti-aging industry, and most especially the cosmeceutical sector.

As we have mentioned, the anti-aging interventions conducted in the name of reducing the effects of time and aging on the body are often premised on the belief that it is human "nature" to improve human life. While in part this notion could be read as the generalizing of a particularly Western technical tendency out across humanity as a whole, especially when combined with narratives of technological progress, it is easy to see how such a notion is reflective of the codetermination of the human and the technical proposed by Stiegler, whereby the human develops only in relation to technics. Minimally this notion is reflective of an understanding of human beings as *homo faber*, "man the maker," an idea found in Western thought from Marx to Bergson and Hannah Arendt.

Cosmetics use, likewise, has always been haunted by the relation between the technical or artificial, and the human or natural, which has mapped onto a dualistic distinction between the surface "appearance" of the face and the underlying "reality" of facial structure. Throughout the Rennaissance, Restoration and most of the Victorian era, cosmetics, while used increasingly and undergoing spurts of popularity in various - frequently theatrical - quarters, were generally considered dangerous because they allowed for variance between what or who one "was" and what or who one "appeared" to be. In Hamlet, for instance, Hamlet accuses Ophelia of being two-faced on the basis of her facility for making-up her face: "I have heard of your paintings too, well enough; God hath given you one face, and you make yourselves another" (III, i, 141-143). John Donne, in a sermon "Preached at a Marriage," argues that to use cosmetics is to "take the pencil out of God's hands (Donne 26). Similarly, Kathy Peiss notes that use of cosmetics was frequently associated with witchcraft, citing the English Parliament's introduction, in 1770, of an act that allowed men to annul their marriages to women who "ensnared" them through the use of perfumes, face paint, cosmetics, false teeth and hair (Peiss 26).

In the 20th century, however, a different view of cosmetics emerged, in which the assumed artificiality of the cosmetic face was subsumed within the notion of self-expression. Thus, Peiss notes the 1938 release of two lipsticks named Lady and Hussy, marketed together as products to be alternated according to mood. Where in the previous centuries these categories of Lady and Hussy would have been seen not merely as polar opposites but as categories of being, in the 20th century, they are seen as options for the expression of mood (Peiss 3-4). The idea emerging here is that to take on multiple appearances via cosmetic techniques is in fact a "natural" thing to do; the natural is produced via the technical (Negrin 87).

The discourse of cosmeceutical marketing inherits this tradition, and even takes things one step further, producing a subject that is in fact constitutively technological. Advertising copy for Avon's Anew Pure 02 Oxygenating Cream makes the following claim: "Rejuvi-cell Complex makes surface skin cells appear to act younger" (Avon 42). While this phrase may quite possibly be gibberish, or may simply be a mangled way of using the verb "appear" as code for a product that doesn't work on the skin "itself" and thus makes no claim that could be taken as false advertising, the doubling of figures of artifice - "appear to act" suggests that, at bottom, the skin-cells are always-already acting, and are thus always-already given to artificiality and thus technicality anyway. Another Avon product, Hydrofirming Bio⁶ Eye Cream, is advertised as follows: "'Smart-sensing' technology re-programmes the skin and trains it to moisturise itself" (Avon 45). This ad is more explicit, positioning the skin as not merely something that can be re-programmed but something that was programmed in the first place. Smartsensing technology shows skin how to do its job better, how to be more efficient, how to act younger, how to get more out of life, how to be more skin-like than skin itself. As with the surface skin cells of Rejuvi-cell Complex, that are alwaysalready acting like skin cells, here, the skin is re-programmed and trained to act like skin, but a skin that is better, a skin technologically gifted the autopoietic power of moisturising itself, as if autopoiesis was not something "natural" but was rather the function of cosmetic technoscience.

Similarly, Shiseido's Intensive Clarifying Essence takes charge of aging skin that

no longer sheds dead skin cells, "reactivating the natural exfoliation process" that has fallen by the wayside. Other Shiseido products "recharge" the skin like a battery, or "tighten" the "collagen network" of the dermis. Super Refining Essence uses "break through technology that optimises skin's natural cell turnover cycle." Despite the use of the word "natural" in some of these phrases, what is *termed* natural is *described* using imagery that inflects the face and skin with a technological structure on which the product can work. Processes, cycles and networks can be "activated," "optimised," switched on and off like subroutines in a software application.

The cumulative effect of such a discourse is to render the consumer of cosmeceutical products a kind of cyborg or hybrid; simultaneously a human being subject to biological aging, and a technical being whose body parts - skin cells, skin layers, collagen networks - exhibit a technical functionality that suffer wear and tear but can be repaired and boosted via cosmeceutical technology. Thus, cosmeceuticals and the anti-aging industry more generally remind us that we are subject to time (the already-there), and that this subjection involves a process of decline towards an inevitable but unknowable end; this is the anticipation of Dasein, what Stiegler calls "being-toward-the-end" (Technics 183). Cosmetic anti-aging technologies purport to give us ways of managing or reducing the effects of time on the body, especially the visible effects of time and aging, and especially these effects as they appear on the face and skin. While medical antiaging and gerontological discourses coalesce around questions of health and disease, what is "normal" aging and what is "pathological" aging, the cosmeceutical discourse focuses more succinctly on the question of time, pathologising not simply the actual effects of aging (these are taken for granted as undesirable) but time itself (Mykytyn, "Medicalizing" 315).

For example, Shiseido's "Bio-Performance" range of products are expressly marketed as "time-fighting" products: "With every passing day, women are demanding more and more effective time-fighting skincare products" – "Bio-Performance is a time fighting skincare collection, set apart by Shiseido's most advanced biotechnology research." Christian Dior's Capture Essential anti-aging product is explicitly named a "Time Fighting Serum" as is Orlane Paris' "Time Fighting Care." Similarly, the consumer is consistently reminded of the "damage" done to their face every time they smile, frown, or blink: "Even blinking over 10,000 times a day weakens the firmness of the skin's elasticity" (Shiseido) – "[E]very single one of the 15,000 facial expressions that you make each day is damaging your skin" (Skindoctors). The tagline for Botox Cosmetic reads: "Your toughest wrinkle - it took forty years to get it. And ten minutes to do something about it" (Botox Cosmetic).

Time is temporalized here as something inevitable and indomitable ("with every passing day"), something whose effects are building, threatening, engulfing ("women are demanding more and more effective time-fighting skincare products"), almost as if time itself is running out, as if it goes too fast, at the same time as it is something which must be fought off, warded off and destroyed. The very fact of being in time, the day to day, the simple existential and phenomenological inevitability of Being, which is perforce to be in time, to be constituted in and of time, to experience life as time, is pathologized here. Likewise, the "marking" of time in, on and by the face, by blinking, by smiling, by frowning, that is to say by ex-pressing, is simultaneously an im-pressing, a writing, a recording and undue pressure that damages the skin, marks and mars it. In this discourse, the face is constituted as a kind of archive, as something that records - automatically, mechanically, uncontrollably - time and experience within itself. The face records time simply as a function of time, it is an analogue of time, a body/machine/clock, its seconds and hours marked out by blinks and frowns. The face itself is "technology out of control," the awful evidence of the already-there, and the only solution for this is further technologies of temporality.

Memory and forgetting are both implicated in this process; aging skin, skin that has "forgotten" how to exfoliate, as in Shiseido's Intensive Clarifying Essence, or how to moisturise or oxygenate itself, as in Avon's Hydrofirming Bio⁶ Eye Cream, needs to be technologically "reminded" how to do it. But at the same time, the forgetting is a kind of remembering, because the loss of exfoliation or moisturization results in the face recording its passage in time. Likewise, the reminder of how to moisturise and oxygenate, will concurrently be a kind of forgetting, because what has been recorded will be wiped away. Cosmeceuticals thus present us with a concrete manifestation of Bergson's image of duration; two spools, with a tape running between them, one unrolling to represent the process of aging, the other rolling up to represent the growth of memory and build-up of time past (Bergson 164-165). Memory is constantly building, as the

time before one shortens; this is simultaneously anticipation and the fear of dying but also a kind of "horror" of memory, a horror at the amount of time that has elapsed and the degree to which this time leaves its mark. Cosmeceuticals operate as a kind of "cure" for both these malaises, and thus for duration as well, serving to reduce one's fear at the encroachment of death – because you are now actively "fighting time" and in a way going backwards in time, getting older by anti-aging – and also reduce the appearance of the amount of time "behind" you in the facial archive.

But, as Derrida and Foucault remind us, the archive is always first and foremost determined by the conditions of possibility of archivization, hence cosmeceuticals must be understood as regulating the process of archivization and thus the future of the archive. For in addition to being pathologized, a disease, an unwelcome writing machine in the facial archive, time is also something that is malleable, something potentially subject to technoscience ("set apart by Shiseido's most advanced biotechnology research"), something whose effects can be ameliorated, re-defined, controlled, temporarily halted, and perhaps even reversed. Thus, while one of the main purposes of cosmeceutical treatments is to reduce the visible effects of aging, another key element is the claim to reduce further effects of time - that is, further archivization - in the future. Here, cosmeceuticals are conceived as a pre-emptive strike against aging, as reducing damage before it has occurred, echoing de Grey's fantasy of "fixing the things that go wrong with us faster than we are encountering them." Shiseido's Advanced Super Revitaliser Whitening Formula works "to promote a flawless fair complexion and to protect against future damage." Super Lifting Formula "incorporates the latest biotechnology to give skin an instant lifted look and feel, while reconditioning the skin to promote improvements over time." The skin has "look and feel" like a software interface, which is accessed by "the latest biotechnology," and can be "reconditioned" to improve itself over time, which is to say that in the future the archive of the face will no longer record and that time will thus slow down.

Botox is the paradigm of this tendency. Because it freezes facial muscles, reducing the ability of the face to form facial expressions, Botox also purports to protect the face from future "damage" because the face can no longer express. Hence, much of the popular writing on Botox refers to its use as a pre-emptive strike against aging (Devine 15). The future of the face under Botox, then, which is also the future of the facial archive, is one in which the archive will not function; by freezing the facial muscles and reducing the face's ability to express/im-press, the archive of the past is wiped clean at the same time as the future of the archive is emptied out as well, because in the future, no recording will be possible and thus, also, no event will ever "happen." This is Botox as a kind of active forgetting, of real-time recording and erasure, an archontic technology of anarchivization, of archive fever; the face is preserved, in the sense of having a more youthful appearance projected into the future, at the same time as it is not preserved, in the sense that the archive is emptied out. Remembering to forget, forgetting to remember: "In other words, the radical destruction can be reinvested in another logic, in the inexhaustible economistic resource of an archive which capitalizes everything, even that which ruins it or radically contests its power" (Derrida, Archive Fever 13). In a certain sense, then, Botox, and other anti-aging technologies that claim to project their function into the future, represent an embodiment of the fantasy of "breaking the time barrier" because the function of the face as archive, as technical repository of time, breaks down under the weight, or minimally under the promise, of "timefighting" cosmetic technologies. Time becomes elastic under such regimes, something that is temporalized differently according to the cosmetic technology regime under which one lives.

But why, really? What is so wrong with time – with ex-pressions and impressions, with displaying the visible effects of time and aging, with looking one's age – that time-fighting technologies must be developed, that the face must be constituted as an archive at the same time that the archive is destroyed? Why preserve the face by not preserving it, why project the face's future on the basis of destroying its past? Why give the face over to the archive fever that grips us in so many other spheres?

We have suggested that the cosmeceutical sector inherits the broad situation of the anti-aging industry as a whole, where awareness of population aging and the effects this will have on national and global economies funds a vast medicotechnoscientific enterprise of research into longevity medicine and interventions into the very molecular process of aging. Thus, time needs to be fought because an expanded aged population requires a greater "active" life-span (or a legalized and massified euthanasia program, but governments don't seem to be heading in this direction). At the same time, there is also a sense in which the anti-aging

industry and the cosmeceutical sector are funded by the broader societal drive towards permanent technological development, the sense of technology as something the purpose of which is always, unceasingly, to make human lives "better" (implicit in this notion is the idea that human lives can *always* be better). The speed of technological development is an index of this drive, as is the development of technologies of speed, of real-time computing and media reportage and dissemination. As Adrian Mackenzie notes, "time itself is being colonized by speed. Acceleration and instantaneity seem to intolerably compress time" (Mackenzie 1). Rhetorics of "time-fighting" technologies and pre-emptive strikes against aging, which echo notions such as de Grey's Strategies for Engineered Negligible Senescence and the fantasy of technoscientific developments speeding life up to "escape velocity," suggest that the effects of contemporary tele-technologies on the experience of time do not go unnoticed. In this sense, the anti-aging industry, and especially the cosmeceutical sector, represents a kind of panic response to the broad sense of the disappearance of time, no matter that these industries also *produce* this temporal disappearance; at the same time as we multiply technologies of memory, of information and time storage, we collapse time more completely into speed via real-time technologies. The face is caught in this economy, constituted as an archive at the same time as the archive is destroyed, enmeshed in archives as well as their dissolution.

Time-fighting technologies, then, are the commodification of time itself, the capitalization of the very thing everyone is trying so hard to be free of, the logical continuation of the anti-aging industry's identification of time and aging as the market without end. And so in this sense, finally, it is not even a question of "what is so wrong with time?" but rather, "what makes time such a great commodity?" What makes time such a great commodity is the irony that attempts to collapse time, to fight time, fantasies of *exceeding* the time barrier, of reaching escape velocity, simply succeed in selling time back to us in the guise of a nympholeptic desire for speed, Derrida's *course de vitesse*, the speed race in *search* of speed, the asymptotic curve of the capitalization of the ineffable.

Grayson Cooke is an interdisciplinary scholar and new media artist who lectures in digital media at the Bundaberg Campus of CQUniversity. Grayson has exhibited works of new media and photography in Australia and Canada, he has performed live-mixed audio-visual works in Australia and New Zealand, and he has published academic articles in numerous print and online journals. He holds an interdisciplinary PhD from Concordia University in Montreal.

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