mal gatherings. Pickering finds this unstable social basis crucial to how cybernetics was disseminated. Because it bordered on amateurism, it had a stronger cultural resonance and popularity. Not only did cybernetic practices spill over into all sorts of disciplines and fields, such as management, politics, and the arts, there was also a strong affinity between cybernetics and Eastern philosophy and spirituality. For instance, the cybernetic psychiatry of Bateson and Laing stood in stark contrast to the mainstream psychiatry of the 1950s and 1960s—it was deemed "antipsychiatry" for its stance against the violent interventions that dominated mainstream practice (such as shock therapy and lobotomy). Both Bateson and Laing were deeply critical of traditional psychiatry and its hierarchical structures, and their version was more informed by Eastern philosophy and religion, which also happened to be hallmarks of the countercultural movements that defined the decade.

Why should we care about cybernetics? Pickering sees something vitally important

in British cybernetics, and this explains the book's subtitle. Put simply, cybernetic practice can be seen as a model for future practice. We are increasingly confronted with problems that require different solutions—the "exceedingly complex systems" that modern sciences cannot tackle. There are systems that surprise us, that fall outside of the framework of calculability and prediction. The aspect of cybernetics that is most important and compelling for Pickering is its assumption of an ontology of unknowability. The term captures, for Pickering, what was novel and important about what the British cyberneticians were doing. This unknowability and awesome complexity is not cause for despair—in fact there are ways that scientists can be constructive and creative in tackling such systems—and Pickering's cyberneticians show us how. The author sees cybernetic science as fundamentally democratic: it forces us to have respect for the other, and it displaces the anthropomorphic stance we have on nature as a result of the dominance of modern sciences. Following political sci-

entist James Scott's list (2) of "high modernist" projects that "aim at the rational reconstruction of large swathes of the material and social worlds," Pickering discusses the "dark side" of modernity. Here he includes projects that have had very disastrous consequences, such as the reform of agriculture with its effects on world famine and the effects of industrialization on global warming. It is in combating such projects—and the modernist attitude that fuels them—that Pickering sees the greatest merit in cybernetic ontology. It suggests that there is a way we might act differently. There is enormous value in adopting this different ontological stance, in which the world is not ours for the taking.

- 1. A. Pickering, The Mangle of Practice: Time, Agency, and Science (Univ. Chicago Press, Chicago, 1995).
- 2. J. Scott, Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed (Yale Univ. Press, New Haven, CT, 1998).

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EXHIBITIONS

Skin Overlooked

... when I was a young man just setting out on my career in skin.

eorge Nuku asked his cousin to recarve him. It took 18 hours, and by the time his relative had finished George was blind from the swelling and inflammation. He wondered what he'd done. He couldn't see his new self until four days later. In traditional Maori culture, Ta Moko begins as a rite of passage at 15 years old. The intention, according to George, is to inscribe the person's soul on the outside. To achieve a full Ta Moko with ridges of scarification, George will need to be carved five

times. But at the age of 46, his skin is thin, and the process time consuming. Plus, he doesn't have much time: he is fully occupied in traveling around the world promoting Maori culture.

George is a live exhibit (and consequently often not present) at the Wellcome Trust's current exhibition, Skin. The show is accompanied by a variety of events, from discussions about tattoos, the use and utility of cosmetics, and the theme

of elasticity to a full frontal symposium on nudity and all its embarrassments. There is a series of tours of the exhibit given by the curators, contributing artists, and Michelle Lovric, the author of The Book of Human Skin (from which I have taken the quotations that

the skin: because it is both the story and the storyteller.

The exhibition comprehensively illus-

acter in her comic, gothic horror story: a black 'n' white, good 'n' evil story. The distinctive skins of the five voices of the book are constantly on display, even depicted by different typefaces on the paper skins of the book. As his own erupts in crops of maggoty pimples, the garrulous Minguillo Fasan pursues an obsessive desire to torment his beautiful and pusillanimous sister, Marcella, almost, but not quite, to the

point of death. In balancing the evil characters, the other crazed lunatic, Sor Loreta, is determined to toy with her own life and masochistically destroys her skin in her madly competitive desire to appear holier than thou. And then there is the all-too-necessary resectioning of skin that the sympathetic young surgeon Dr. Santo Aldobrandini has to practice, not to mention the bruises, wounds, diseases, and other evidence of grotesque abuse witnessed by the noble servant Gianni delle Boccole. Nevertheless, the appalling Minguillo Fasan apparently has some redeeming characteristics: his love of his Venetian palazzo and of his books. As the story peels apart, this passion for books is revealed to be yet another grotesque compulsion, but one that rather satisfyingly supplies his nemesis. The author artfully implies this is not a nice book, and as she pulls us in, horrified and intrigued, we, the readers, become complicit in Fasan's crimes. Indeed, it's a truly nasty book.

... we were dextrous tailors of human skin. ... stitching together the cleaved and shattered flesh in neat, swift seams.

The exhibition and Lovric's novel each make it plain that skin is the principal component of our identity, both hiding and betraying our inner selves. Although skin is tough, renewable stuff, every breach of our wrapping leaves its mark: we minutely examine every spot and wrinkle, cut or bruise on our own

act as subheadings here). Perhaps this is why I have always loved

trates Lovric's book. Skin is the main char-

The Book of Human Skin by Michelle Lovric Bloomsbury, London, 2010. 510 pp. Paper, £12.99. ISBN 9781408805886.

Javier Moscoso, Lucy Shanahan,

and Nike Fakiner, Curators

Wellcome Collection, London.

Through 26 September 2010.

www.wellcomecollection.org

Skin

dermis for the story it tells. Indeed, the scarring resulting from wounding, allergy, infection, or inherited disorders can leave profound marks on the inner person as well as the outer.

Some resort to artificial means to correct imperfections, using surgery to smooth away any signs of age distressing to the identity, ignoring that surgery cannot stop the rot within. Still, however much we might scorn the nip and

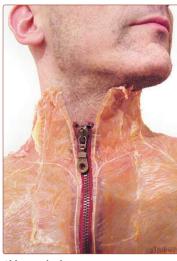
tuck industry, its practice brings skills that, although honed on the wealthy and vain, can be employed with inestimable value to the less fortunate. For example, to aid children whose faces need reconstruction after the devastation of noma, cleft palate, burns, or leishmaniasis.

Reconstructive surgery means moving flesh around radically, which can create new problems. Skin behaves rather like cloth, and as it is cut and restitched it forms folds and tucks elsewhere over the body's contours. Rhian Solomon is a textile artist who teamed up with surgeon and fellow artist Brian Morgan to explore the pattern-making techniques of the Russian surgeon Alexander Limberg (1894–1974). Limberg wrote a treatise on geometrical surgery; he proposed that surgeons should practice their technique by folding paper patterns to see how resectioned skin falls into place. Solomon has applied her dress-making skills to observe how Limberg's geometry translates into a nose or a breast or covers a gap after excision of a tumor. She's hoping to obtain funding to develop novel patterns for skin reconstruction.

To satisfy mere vanity though, you could try SkinBag, a Parisian haute couture company that can provide you with an alternative skin to wear just for the day. Olivier Goulet manufactures apparel from latex to resemble skin of various colors. An array of jackets and overalls are hanging in the exhibition for the visitor to try on, although their texture is too repellent and the odor too offensive to be tempting.

... I wanted to know the intimate details of flaying. Skin does not fall off of its own accord!

To the 17th-century anatomist, skin was an inconvenient barrier that obscured the interesting machinery beneath. There's a form of illustration, known as écorché (flayed), in which the body is sometimes depicted as



SkinBag jacket.

removing and carefully putting aside its skin, almost as if it anticipated a museum curator would find the shed tissue 300 years later. In this tradition of revealing the body beneath the skin, exquisite wax models were made for medical education. Anna Morandi Manzolini (1714-1774) became an exceptional practitioner of ceroplasty and stepped into

her departed husband's shoes as professor of anatomy at the University of Bologna. *Skin* has several wax models on display. Lying curled up on a silken bed is the piteous body of a boy smothered with encrustations of skin fungus. A row of amputated hands shows the wear and tear a laboring life brings. A replica of a fatal exfoliating disorder is contained in a glass bottle as if infectious, and, lastly, a collapsing head shows how even wax models age. To offer a counterpoint to the literal wax artworks, Tamsin van Essen has provided a selection of ceramic apothecary jars that bear abstract wounds as if the pots have caught syphilis or developed acne.

... so many things going on between his thoughts and his skin.

As curator Javier Moscoso points out, the boundary the skin represents is a thin one, as is the boundary between appropriate and inappropriate. Topologically, the skin, or at least the epithelium, is endless. A tableau of orifices, ears, noses, and perinea attempts to demonstrate where the outside ends and the inside begins. Here we have a wax vagina. It is held open not by the owner's own fingers—as to do so the hands would have had to have been attached to the arms upside-down. Perhaps these intruding fingers represent the onlooker's own? And thus, helplessly, we become complicit voyeurs. Despite the assistance, there's not much to see within, so for whose edification was this model's virtue on display?

Medical examination requires inspection of the skin, and all the lewd possibilities this brings are summed up in *The Examination* by Jules-Abel Faivre (circa 1898), in which an elderly doctor has one ear planted firmly on a girl's breast. She looks directly out, discomforting us with her gaze.

There are few other breasts on view, with the exception of those depicted on samples of tattooed human skin. These came from 19th-century France and comprise large and crudely made sketches of naked women, which may have been removed from the bodies of prostitutes who were tattooed as a sign of their occupation. How and why were these collected?

Some people see skin simply as a texture, that holds in place all the important organs, as a sack holds a squirming haul of fish. Few know what a strong lens reveals of that sack ...

The curators dipped into the Wellcome Collection's film vault and found some interesting relics among the educational footage. A 1960 German film of skin sweating is almost beautiful. It zooms onto the ridges of a fingerprint, and gradually spits and spots of liquid shine on the crests, dry, and become replaced as regularly as the pulse of blood beneath. Similarly mesmerizing, until realization strikes, is the film *Sybille II* by Wim Delvoye (1999).

Unexpected beauty also comes from still artworks like Gemma Anderson's portrait of Melissa Smith that transforms disease and disfiguration. Smith has the genetic condition epidermolysis bullosa, which causes the skin to blister and erode painfully, leaving scarred and encrusted skin that has to be constantly tended to. Anderson's copperplate engravings transform the lesions into jewels and make a landscape appropriate for the women's common passion for the decadent novel *Against Nature* by Joris-Karl Huysmans (1848–1907).

... all the rooms of my imagination were lined with soft human skin.

Like Lovric's book, Skin shocks and disgusts. Nonetheless, the curators had an overarching goal of showing how important the skin is as an organ and how much it is taken for granted. Moscoso described his criteria for the exhibition: the use of books, the importance of hands, avoidance of full frontal female nudity, no skin physiology, and almost no discussion of color (even the backdrop drapes of fake skin were pale). The curators did not want to encourage puerile gawping, but half of us have (had) breasts. I don't know whether we'd be better off being more formally educated about skin or meditating yet further on the boundaries skin represents. The exhibition didn't fail in provoking thought, and Lovric's book didn't fail in simply provoking.

-Caroline Ash

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