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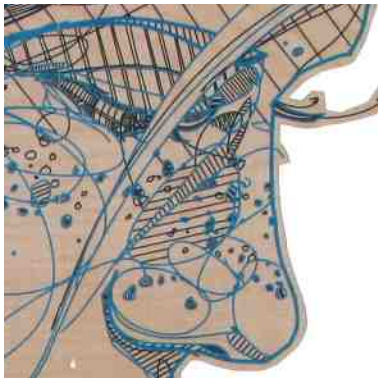

Art by Jason Thielke

The photography of Berenice Abbott

Editor's letter

I have never quite accepted the notion that the world is changing faster and is more chaotic and unpredictable than ever before. The more I read into history and literature, the more I'm convinced that human beings in previous centuries had quite as much uncertainty to deal with as we do today. The fabled stability of ancient Rome? A trick played on the eyes by distance, obscuring a tumult of civil and foreign wars, changes of regime, economic expansion and contraction—not to mention plague and religious revolution. Modern states are oases of calm in comparison to this cacophony.

And technological progress? Well, if your definition of "revolution" is the development of a flat computer that makes it easier to read magazines on the train (there's a name for that gadget, but it's escaped me), then I'm not at all sure what word you'd use to refer to the invention of the automobile, the harnessing of electricity, or the biting of the first plough into the Mesopotamian soil. Ours is an age of a million innovations, it is true—but they're generally humble ones.

Yet at least two things do make the twenty-first century special. The first is a return to form: the famous, inescapably in-your-face phenomenon of the "flattening" world. For most of history, urban-based civilizations around the planet have offered similar qualities of life. Something happened in Europe in the late eighteenth century, and for a hundred years or so relative economic strength allowed the continent and its colonies to dominate large parts of the world. But now the "something" that happened in Europe has been happening everywhere else—faster, this time round—and the world is shifting back into its traditional state of rough equality.

This is a development that you might reasonably call "big". But what is even bigger is what it implies for human creativity, both intellectual and artistic. The expansion of an economic middle class implies the expansion of an *educated* middle class, which brings along with it increased demand for cultural goods and an increased ability to develop solutions to difficult problems. The rise of the emerging economies, therefore, means not only greater wealth, but also greater brain power. No longer is it sufficient to pay attention to New York and London to stay at the leading edge of ideas.

Ideas—whatever their origins—that can now be shared globally and quickly. This is the second great attribute of the new century: the ability of an open network like the Internet to act as a single hub connecting billions of users, and the power of a *lingua franca* (English, these days) to act as a common meeting point for the ideas themselves, a meeting point surrounded by a panoply of vibrant cultures developing ideas in their own languages. An unprecedented proportion of the creative production of the world is thus accessible to anyone at any time, to draw from or to add to.

"A city," writes Rebecca Solnit in her recent book *Infinite City: A San Francisco Atlas*, "is a particular kind of place, perhaps best described as many worlds in one place; it compounds many versions without reconciling them." Such is the world at large today, a single city of many neighbourhoods, each of them distinct, few of them reconciled—yet sharing a common infrastructure and a common vulnerability to storm and shock. Founded in a spirit of community amid the bright lights of an imaginative, energetic, and sociable century, this magazine looks forward with hope.

— I. Garrick Mason

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THE DAY AFTER TOMORROW: IMAGES OF OUR EARTH IN CRISIS

INTERLOC*

Scaling human nature up

A conversation about community, global governance, and climate change

PETER J. RICHERSON AND CHARLES WOHLFORTH

* Interloc brings thinkers together to explore a question through conversation and the enriching interplay of ideas, beliefs, and experiences it fosters. For this issue, we invited Peter Richerson and Charles Wohlforth to address the following question: "Is the model of resource-use cooperation in self-organized communities relevant to solving large-scale environmental problems that span communities and nations? In other words, can the concepts of community and cooperation scale to the global level? If so, how?"

Peter J. Richerson is Professor Emeritus of Environmental Science and Policy at the University of California. He is the author, with Robert Boyd, of *Not By Genes Alone: How Culture Transformed the Evolutionary Process* (U. Chicago Press, 2006), and *Culture and the Evolutionary Process* (1985). http://www.des.ucdavis.edu/faculty/Richerson/Richerson.htm

Charles Wohlforth is a freelance journalist based in Alaska, and the author of *The Whale and the Supercomputer* (which won *The Los Angeles Times* Book Prize for Science & Technology) and, most recently, *The Fate of Nature: Rediscovering Our Ability to Rescue the Earth* (St. Martin's Press, 2010). http://www.wohlforth.net/

Charles Wohlforth: Your work shows how human pro-social tendencies could have evolved as a consequence of people living in groups with cultural traditions for cooperation. A tribe that works together effectively has a better chance of survival. Cultural norms enforcing cooperation keep the tribe on track. Sanctions affect the ability of defectors, or non-cooperators, to reproduce—for example, a man who won't fight in battle for the tribe is shunned and cannot find a mate. Over time, biological adaptation follows those cultural norms, and we come out of the womb programmed for shame and loyalty, and other emotions that make us good group members.

The debate rages in evolutionary biology between kin selection and group, or multi-

level, selection, allowing wags to point out that a war is going on among scientists who study cooperation and altruism. But your theory sidesteps much of that technical debate by taking it out of biology, at least in the critical step of how cooperation starts in the first place. Even the most self-centered egoists in their ancient tribes, would, with sufficient brain power, realize they could accomplish more together than alone. And they could devise sanctions for keeping the group working together. It makes sense that those rules would ultimately be bred into us.

As you've noted, we all ended up with both pro-social and self-interested tendencies, which can play out in many ways in many settings. I'm interested in how they play out in the setting of the globe as a whole. We are again faced with an adaptation challenge, that of fitting our species within an ecological niche which encompasses all life. We aren't doing well at it. Individual and group competition are driving economic growth that is changing the climate, acidifying the oceans, and dismantling ecosystems. Research suggests that groups, or communities, can manage common resources sustainably, but we've seen little evidence that nations can, and even less evidence that international organizations can get humankind, as a whole, to overcome the acquisitive, consumptive and competitive side of our nature. Is the pro-social side of ourselves ineffective on these larger scales? Is that a stage in cultural evolution we haven't reached yet—and may not reach in time to solve the problems that face us?

I have given a lot of thought to the idea that we do create pro-social norms for the environment, and we have made progress in imposing on environmental wasters the kind of social sanctions that work on smaller scales. For example, in our country, the last few decades have created a norm of strong disapproval for those who throw litter on the side of the road. The point I've tried to develop in my book, *The Fate of Nature*, is that we need political and social institutions that will allow communities to establish these norms, which can then propagate, inter-group, through personal contact and perhaps through the media, to change the environmental ethos of society as a whole. Even the richest oil company president or his hirelings in government can't ignore the basic moral presuppositions of the culture.

But your idea about how this worked in primitive times suggests that parochialism is also a fundamental part of developing pro-social cultural norms. Feelings of us-against-them build group affiliation and a strong basis for punishing defectors. Lab research on communities that successfully manage the commons point to in-group prejudice as an important component of making those systems work. Can we really expand pro-social affiliation to the entire world? If not, can our good acts with our local communities and common resources create norms of broader effect, beyond the direct reach or our own groups?

Enough to chew on?

Peter Richerson: Plenty to chew on!

You are right to worry about the problem of parochialism.

In *The Descent of Man*, Darwin spoke of selection at the level of tribes favoring two sorts of moral impulses, sympathy on the one hand and loyalty and patriotism on the other. He argued that sympathy was an engine for moral progress. Sympathy is inclusive and helps people imagine how their moral community can be enlarged beyond their natal tribe or nation. Laws, religion, and the example of good men (sic) were among the cultural means by which the "instinct" of sympathy could act as a force for enlarging cooperative communities. Loyalty and patriotism are more dubious virtues. In many situations, as we know all too well from the news, if not from personal experience, loyalty to tribe or religion helps bring order within groups, but also leads to distrust and even hatred of outgroups, intergroup anarchy, and spasms of dreadful violence. Rob Boyd's and

OPPOSITE
J Henry Fair,
Texas City, Texas

my "tribal social instincts hypothesis," outlined in our book *Not By Genes Alone: How Culture Transformed Human Evolution* is a modernization of Darwin's idea.

The contemporary world faces a number of global-scale challenges, including climate change, biodiversity loss, emerging diseases, and economic instability. The first primitive stab at globalization, symbolized by Magellan's circumnavigation, has evolved into a tight web of links that bind the world up. The growth of the human population, and of affluence per capita, has made our species the earth's first dominant organism since perhaps some pioneering photosynthetic bacterium three billion years ago. The evolution of our dominance has been exceedingly swift, born of the capacity of huge, sophisticated populations to fuel explosive technological and social change. Simple back-of-the-envelope arithmetic argues that life on earth could easily become quite unpleasant unless we are prepared to manage our dominance. You don't need an ocean-atmosphere-coupled General Circulation Model to tell which way the wind blows!

On the positive side, the trend of cultural evolution over the last ten millennia is favorable as regards the balance of sympathy over patriotism. As human populations and human sophistication have grown, we have developed ever more sophisticated tools to deal with the problems generated by our own success. The growth of multiethnic empires 2,500 years ago led to the development of "Axial Age" philosophies and religions with a broadly humanistic rather than parochial core ideology. In the twentieth century, two awful world wars and the invention of cheap nuclear weapons led to new international institutions to protect human rights and to contain the nuclear genie. The European Union has gotten some handle on conflicts in

J Henry Fair, Barataria Bay, Louisiana

the twentieth century's most dangerous region.

On the negative side, the main ideological energy that has organized the onrushing modernization and globalization of the last two centuries has been nationalism, with its typically rather extreme demands for loyalty and patriotic fervor. Attempts in Europe to promote multiculturalism under the EU banner have provoked the formation of influential reactionary nationalist parties in nations that we formerly considered some of the most enlightened. More generally, the complex societies of the last 5,000 years have proven susceptible to boom and bust dynamics, the causes of which we do not yet understand very well.

Nationalism and tribalism are not the only game in the global village. The great religions have produce unifying thinkers and doers like the Dali Lama, Desmond Tutu, and Martin Luther King. Unfortunately, these same religions have spawned fundamentalist tendencies, sometimes with nationalist connections as in the Balkans. Secular humanists have a cool, well-reasoned internationalist policy agenda, but don't excite mass enthusiasm. I don't see any immediate prospect for a successful globalist ideology with mass appeal that will decisively strengthen our capacity to sympathize with our fellow humans, regardless of tribe, nation, or confession.

The globe's work for the immediate future seems destined to remain largely dependent on the efforts of internationalist elites: diplomats, businessmen, leaders of non-governmental organizations, ecumenical and proselytizing religious leaders, scientists, and environmentalists. This is an awkward state of affairs in a democratic age. Jingoistic politicians can whip up national and sectarian loyalties that greatly handicap the management of global problems, as our most recent election in the United States showed. You and your colleagues who write so well for the general public are certainly creating an environmental ethos. The generational shift

Small as we are as organisms in comparison to these problems, nonetheless that is the level at which change must occur

in attitudes is palpable and, we can hope, durable. However, the drive to achieve changes in attitudes that allow sympathy to trump national and sectarian loyalties to the degree necessary to tackle global scale problems, looks to me as if it is going to be a near-run thing.

Consider the power of consumerism. The rate of human population increase is slowing and is expected to stabilize or even begin shrinking in the next few decades. But in the meantime, affluence per capita continues to rise, especially in the big and formerly poor BRIC nations. Exploding affluence needs somehow to be contained, but despite much excellent academic work and finger-wagging by many, including Pope John Paul II, little impact on popular thought is evident.

Wohlforth: It seems we're trying to solve all the world's problems at once. I suppose that is a hazard posed by the perspective of your work, in which you take on big ideas and find patterns and drivers in the mix of biological and cultural roots of behavior. There is a definite challenge in moving from that framework to making normative or prescriptive statements for individuals. In my writing, trying to create the environmental ethos you allude to, I seek to make that link—to help people to see themselves within the world system, and take individual responsibility. Small as we are as organisms in comparison to these problems, nonetheless that is the level at which change must occur. Only individuals are able to form values or make decisions; tribes, corporations, and nations are groups of individuals.

The last paragraph of your response seems key to me. Materialism and

consumerism, as we live them in the dominant culture, have two characteristics critical for this discussion. First, they matter directly: it is hard to see how we can preserve a finite biosphere while pursuing infinitely expanding needs and wants. Second, the desire for increasing wealth is fundamentally an individual one. Here is a level at which we can make decisions that connect our ethics to consequences in the material world.

Is the desire for ever-increasing wealth and power programmed into human beings by evolution? Or can cultural evolution progress through the creation of a new norm, or ethical value, for sufficiency? For example, imagine a world in which accumulation of unnecessary material possessions has become an embarrassment rather than a status symbol. Maybe social status could be gained instead through non-material achievements or acquisitions, or through contributions to social goods. Such goods and acquisitions need not exist in the physical world and therefore would carry no resource price.

Your discussion of nationalism is well-taken. The impulse toward parochialism makes me pessimistic not only about international agreements and organizations, but even about the ability of individual nations to make meaningful progress on these issues. However, addressing consumerism as an ethical and social issue sidesteps those issues. As norms against materialism take hold (and they are already doing so), they could be transmitted cross-culturally and beyond national boundaries by Hollywood and other cultural export mechanisms. Can the international entertainment industry, which was built to advance and power consumerism and the sale of products, also function to communicate norms for sufficiency? Maybe this is a way we can express our sympathetic impulses as a society.

Unrestrained economic change driven by comparative wants can easily destroy value

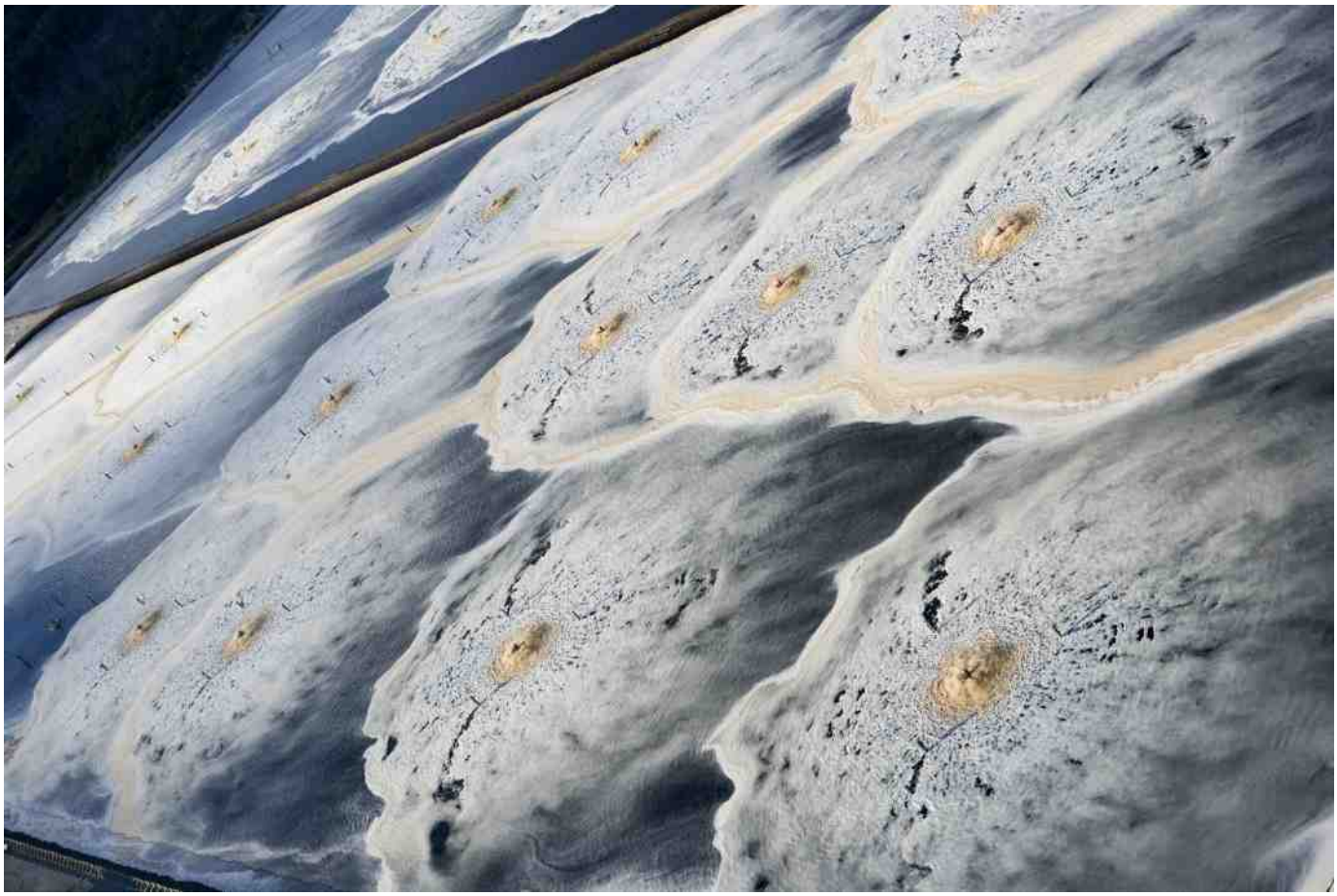
Richerson: Darwin's rather neglected *Descent of Man* proposes a theory of progress, the nut of which is captured here:

> With highly civilized nations, continued progress depends in a subordinate degree on natural selection. . . The more efficient causes of progress seem to consist of a good education during youth while the brain is impressible, and of a high standard of excellence, inculcated by the ablest and best men, embodied in the laws, customs, and traditions of the nation, and enforced by public opinion.

Darwin's "more efficient causes" are an excellent and rather complete list of the tools we have for making human evolution go in desirable directions. You and your colleagues are doing excellent work informing the public; those of us in universities try to educate and influence the ablest and best. This is all in pursuit of progress, I believe.

You raise an important point about the role of the individual in creating progress. Forming laws, customs, traditions, and public opinion are matters of collective decision-making. We attempt to persuade each other of the right course for public policy. In simpler societies, and in smaller segments of more complex societies, we talk out the issues that face us and try to reach decisions based on consensus. The legislative process of many modern states is merely a constitutionally-formalized collective decision-making system. Customs and traditions evolve through the contributions of myriad individuals over an extended period of time.

None of the above is meant to underestimate the importance of individuals taken one at a time. Persuasion is like a retail business. We try to get individuals to read our books, attend our classes, and think about who to vote for. A great deal of creative



J Henry Fair, Terrace Bay, Ontario, Canada

heavy lifting is done by individuals. However much ideas are propagated, refined, and recombined by wholesale collective decision-making, I can't see how we can operate any human social system without retail attention to the individual.

Our own radically individualist political tradition gives outsized weight to a citizen's decisions in the formation of public policy. I think we need to push back to some degree against excessive individualism. Material wants, especially excessive ones, are comparative: I don't mind living in a modest house, but if all my friends and neighbors live in much grander ones, I may feel the pain of envy in my one hundred square meters while they count their three hundred square meters as a happy sign of virtue, not greed or luck. The economist Robert H. Frank in his books *Choosing the Right Pond* and *The Winner-Take-All Society* dissects the operation of this dynamic. Unrestrained economic change driven by comparative wants can easily destroy value. He shows how cooperation is necessary to evade being victimized by comparative wants. Pride and envy are among Christianity's seven deadly sins. They don't get any better treatment in the other universalistic religions.

Since biological fitness has a strongly comparative component, you are likely correct that comparative wants have deep biological roots. On the other hand, the hunting and gathering societies that seem most like our late Pleistocene ancestors are usually rather egalitarian. Power differentials are modest, and foods that require the most energy and skill to collect are generally widely shared within the community. According to Christopher Boehm in his book *Hierarchy in the Forest*, among human hunter-gatherers those who would have been subordinates in ancestral ape societies cooperated to suppress would-be dominants in order to produce

egalitarian human societies. Anthropologists Joe Henrich and Francisco Gil-White argue in an important paper that humans have erected a new system of prestige on top of the more ancient primate system of dominance. Dominants depend upon raw coercive power for their status while the prestigious are granted status as the ablest and best by public opinion. Aung San Suu Kyi has prestige; the Burmese junta that prevents her party from taking power has dominance. Ancestral hunter-gatherer societies were substantially organized by prestige, not dominance. Dominants rightly fear the power of prestige; the Chinese government reacted quite strongly to the prestige accorded by Liu Xiaobo by the Nobel Peace Prize Committee.

Modern democracy is an attempt to introduce the spirit of egalitarianism and rule by prestige (rather than power) into the operation of complex societies. This attempt runs in the face of history, as complex societies seem to have regularly led to the return of dominance in the human social equation. Yet as Peter Turchin argues in his book *Historical Dynamics*, elite societies are themselves unstable: authoritarians often promise stability when democracy seems shaky, but it is by no means obvious that authoritarians can in fact deliver.

I certainly hope that you are right that by using humanistic and universalist arguments we can draw the sting of nationalism and similar parochial ideologies. This seems essential for moral progress in a world with critical global problems to solve.

I sometimes think of human life as an adventure. In an adventure, you take risks in hope of ultimate gain. Against the risks, you pit your skill and judgment. Modernity has launched our whole species, willy nilly, upon a great adventure full of risk and uncertainty. Foolish adventurers neglect skill and judgment and trust to luck; either we successfully use Darwin's tools to progress or we face the luck of natural selection—and we don't want to evolve by natural selection if we can avoid it!

Perhaps we need to remind people about the adventure's fundamentally social nature. As Adam Smith said in *The Theory of Moral Sentiments*:

> What are the advantages which we propose by that great purpose of human life which we call bettering our condition? To be observed, to be attended to, to be taken notice of with sympathy, complacency and approbation all are the advantages we can propose to derive from it.

Wohlforth: We're wonderfully near to consensus. Your message reads like a very erudite precis of my book, *The Fate of Nature*, including the attention paid to indigenous cultures and Joe Henrich's work, the issues surrounding the psychology of materialism, and the emphasis on cultural rather than biological evolution. I think I've expressed myself poorly, however, in that you've taken some of what I said to be the

J Henry Fair,
Belle Chasse,
Louisiana

contrary of what I meant: I strongly agree with most of your message.

But I think there is an area where I would amend your comments. You say, "Modern democracy is an attempt to introduce the spirit of egalitarianism and rule by prestige (rather than power) into the operation of complex societies." The word "democracy" is as slippery as any in the language. It implies consent of the governed, but in practice more often effects only a wider distribution of power, into the hands of numerous people and across time. On the surface, your point that democracy is more egalitarian follows by definition, since the broader distribution of power is necessarily more egalitarian than dictatorship. However, it does not necessarily follow that a democratic system embodies "the spirit of egalitarianism and rule by prestige." Splitting dominance (or pure power) into parts doesn't transform it into the "spirit" of egalitarianism. More importantly, if that "spirit" means, as I believe you intend, the capacity for expression of pro-social values into policy, I would suggest the contrary may be true. It is not at all clear that a democratic arrangement of power would be better for the environment or would allow human beings to more easily fit within our ecosystem, nor is there necessarily a connection between voting and the transmission of pro-social values into public policy.

The Enlightenment form of democracy most perfectly manifested in the United States assumes that we are not co-operative; in Madison's classic words from *The Federalist Papers* (No. 51):

> Ambition must be made to counteract ambition. The interest of the man must be connected with the constitutional rights of the place. It may be a reflection on human nature that such devices should be necessary to control the abuses of government. But what is government itself but the greatest of all reflections on human nature? If men were angels, no government would be necessary.

Experience teaches that this is, in fact, how our form of democracy functions. It is a system for summing selfish private interests into public policy; a system for allocating resources and for selecting policies that will yield maximum opportunities for private benefit. At best, it is utilitarian, in that the sum of the self interest of the largest number of people is maximized. To the limited extent that the system is capable of recognizing group or community interests, it does so by privileging them within the system of constitutional "places". The original states demanded retention of power. The progressive loss of power by local and state governments reflects the growing emphasis of the U.S. constitutional system on individual interests and economic growth to the exclusion of almost all other values. One can't get elected without declaring support for national power and competitiveness and

promising to deliver maximum economic benefit to individual voters.

It is not a coincidence that concentrated federal power and corporate power go hand in hand, and that community connections that exist in the spirit of egalitarianism are ever weaker. We naturally want to connect with others and the natural world, but the ability to influence the world is increasingly in the hands of distant corporations and governments. Democracy is not helping bring our sympathetic impulses to the fore; on the contrary, it is narrowing the span of autonomy in which these impulses can act, making them irrelevant.

I've heard some environmentalists speak longingly of China's system, where the government can simply impose environmental protection by fiat. Capitalists, too, who envy the rapid economic growth and efficient exercise of government power there. Those feelings scare me. I'm scared that authoritarian postmodern capitalism may be the most efficient and powerful economic system yet invented. I think our constitutional system is seriously flawed, but any student of history should prefer it to one-party or dictatorial power. Madison was right, at least, that our system is well-suited to prevent the free rein of the worst part of our nature.

Returning to our original question about our capacity to address global environmental problems, I'm forced to rely upon social forces: specifically, the creation of norms for environmental ethics in a rapidly developing global culture. The science-and-state mechanism now being used to address climate change would never have brought about last century's changes in race relations. Academic study followed by democratic legislation did not defeat slavery, colonialism, and overt racism. Instead, the really effective tools were moral discussion, community relations, and the spread of new norms through writings and action. Governments only moved when the moral ground had already shifted under them, making continuation of the old system untenable.

As you say, we don't know what will happen. I don't know if the process of social change will be quick enough. But I think it is the solution, and that it is only achievable through those sympathies that we normally express on the small scale.

Richerson: Yes, I imagine that we are near agreement on most issues. I certainly would not defend a panglossian view of contemporary democracies. I share many of your critical opinions. Aside from all their other imperfections, it is not clear that they are up to managing global problems. But postmodern authoritarianisms, as exemplified by China, Russia, or Saudi Arabia, are not obviously any better. In Copenhagen last year, the responsibility for failure was widely distributed and didn't depend much on type of political system.

We also don't want to romanticize hunter-gatherers. In simple societies men dominate women. Feuds and intertribal warfare are often serious problems. Hunter-gatherers have been blamed for megafaunal extinctions.

I think that reasoning from "human nature" is an error. Results from recent experimental games suggest that individuals' propensities to cooperate are highly variable. A large minority of people are strongly cooperative, a majority are conditional cooperators who will cooperate if others do, and a minority cheat as much as they can get away with. In groups composed of the first two types, cooperation emerges rapidly. The problems come from the ten percent of cheaters: for example, those who use communication deceptively, encouraging others to cooperate while they defect. Different cultures vary in the tools they give the minority of strong cooperators to encourage the majority and control the deviously selfish. People also vary in the kinds of moral arguments they subscribe to. We have barely begun to think about politics and policy using population thinking in place of the dubious essentialist concept of human nature.

Excerpt

This is a book of photographs of environmental disasters occurring at different points in the consumer/industrial cycle, which illustrate the negative impact our contemporary consumer society has on the planetary systems that sustain our existence. Because of the subject the pictures are inherently political, but my first goal was to create compelling images.

Essays written by some of the top writers, scientists, and environmentalists of our day punctuate the images. They were asked to write personal memoirs with an environmental focus, and the results range from hilarious to heart-wrenching.

The objective of these pictures is not to vilify any given company or industry—there are good and bad actors everywhere. My intent is to engage the viewer, stimulate curiosity, and encourage dialog. Our society's structure has evolved to the point where government responds not to the citizenry, but to the corporations that finance it. These days the vote that matters the most is the purchase decision. Though our government does not defend or respond to us, the manufacturers do. So the goal of these pictures is to promote an activist consumerism. This is a strategy that works; as testament, look at the Toyota Prius and Whole Foods. There is even an organic food section in Walmart.

I write this after a month of repeated trips over the British Petroleum Deepwater Horizon oil spill in the Gulf of Mexico, and it cannot help but have an emotional effect. I can't bear to drink from a plastic water bottle knowing that oil equaling roughly 1/3 of the volume of that water bottle was used to get it into my hands. One of my responses to the Gulf gusher is to hitchhike. Why burn gas to get from train station to home?

I'm constantly amazed by the willingness of people to ignore the consequences of their actions, and the real risks to their health and well-being. Most of us live in a world of indulgences, all of which have an environmental cost that will be passed on to our children. "The environment" is the system that supports life, our life. But those who are concerned about it, who speak up about it, are relegated to the status of zealots and simpletons. "Things are too complicated," we are told. "We can't change our economy, business will suffer, jobs will be lost." Meanwhile, the system that provides us the air and water we need to live is going into cardiac arrest. I believe that we could very easily change the direction of our society and economy toward sustainability with nothing but benefits for our children, ourselves, and our economy. The only losers would be those currently making fortunes from destruction and exploitation. We have the power. Spend your dollars with your children in mind.

— J Henry Fair

Text excerpted (and edited for length) from the introduction to J Henry Fair's *The Day After Tomorrow,* available Feb 2011 from powerHouse Books (special thanks to flight partner, SouthWings). For information visit http://www.powerhousebooks.com/site/?p=1094, as well as the book's "B-side" at http://www.powerhousebooks.com/site/?page_id=5119

Ron Eady, "Constructure 5", encaustic on canvas, 72 x 48 in.

The sweatshop on your conscience

How consumers and marketers are more responsible for the other end of the supply chain than they'd like to think

BY N. CRAIG SMITH AND ELIN WILLIAMS

PAINTINGS BY RON EADY

Fact 1: *On May 26, 2010, Apple overtook Microsoft as the world's largest technology company (by market capitalization).*

Fact 2: *On May 28, 2010, workers began fitting "suicide nets" at Foxconn's electronics factory in southern China, after at least twelve employees jumped to their deaths in just five months.*

Once upon a golden age of business (which may be just a little bit mythical) marketing departments were down the corridor from the factory floor. And most of the consumers were just down the railroad, probably in the same country—if not the same state. The supply chain was

geographically short and morally uncomplicated.

For marketers in this golden age, it was a simple life of supporting the sales team in their quest to persuade the consumer to buy whatever the factory made. Of course, it wasn't necessarily an easy life. In new-fangled business schools, clever men were beginning to construct elaborate theories of marketing, with sophisticated definitions not so different from the one used by the American Marketing Association today: "The activity, set of institutions and processes for creating, communicating, delivering and exchanging offerings that have value for customers, clients, partners and society at large."

By the 1960s, however, the clever men (and growing numbers of clever women) began to notice that the value provided by marketers for customers wasn't always positive. Professors of business ethics, along with other commentators, pointed out myriad ways in which marketing could harm the consumers it was supposed to serve: from conning them into buying goods they didn't want to persuading their kids to eat more junk food than was healthy.

Meanwhile, globalization meant that supply chains were getting geographically longer and, as a result, that "society at large" was getting larger. In recent years, business ethicists realized it was time to ask new questions. Of course, we couldn't ignore the harm done to consumers *by* marketing. But we also had to turn our attention to the harm done by consumers *through* marketing. Hence the two facts with which we opened.

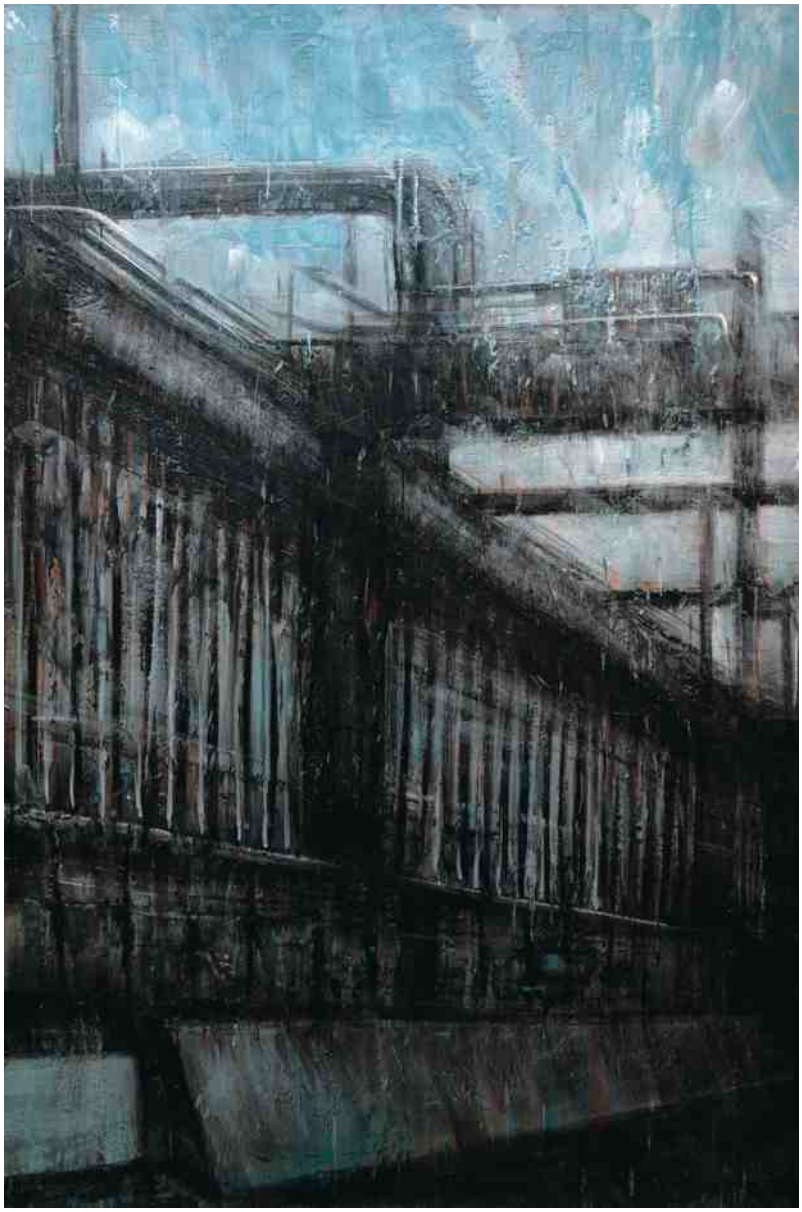
The events are most obviously linked by a chain of supply: the Foxconn factory produces iPhones, arguably the main ingredient in Apple's recipe for success. But we believe that they are also linked by an intangible but very real line of responsibility, running from the consumer through the marketer to workers on the other side of the world. So you don't have an iPhone? No matter. Foxconn also manufactures iPods, along with devices for Dell, Hewlett-Packard, Motorola, Nokia, and Sony. Are you still off the hook?

You can't preserve your innocence by foregoing electronic gadgetry either. You still have to eat and wear clothes. Perhaps you could try buying only fresh food from local, organic farmers' markets and never dining out. But dressing well at a reasonable price and to high ethical standards is a greater challenge. The speed, flexibility, and low prices demanded by today's fashion business of its suppliers are often passed on to the suppliers' suppliers until they finally reach a sweatshop in a developing nation.

This phenomenon is perhaps most obvious in the expansion of European-based "fast fashion" chains such as H&M. Arguably their success is the result of a global collusion between marketers, consumers, and journalists, who have persuaded each other that cut-price catwalk copies are essential ingredients of modern life. But modern death is only just up the supply chain. In March 2010, a knitwear factory in Bangladesh burned down, killing 21 workers. The doors had been locked to prevent theft and the building was filled with highly-flammable synthetic yarns. The fire started as they worked through the night fulfilling orders. Among the factory's clients was H&M.

Fortunately, such fatal incidents are rare. But global supply chains are notoriously hard to police; low pay, long hours, poor conditions, and child labor are endemic in today's fashion business. Whether you are the marketer who chooses the $20 hand-beaded kids' blouse for the billboard ad or the mom who buys it for her daughter's birthday, the little girl who sewed on those tiny beads in an Indian sweatshop is on your conscience.

To use the business jargon, the demands of marketers and consumers downstream affect the lives of manufacturing workers upstream. But the jargon is misleading. The metaphor of upstream and downstream implies a one-way interaction, which simply doesn't match the social reality. Or the responsibility.



Ron Eady, "Imposing Elements I", encaustic on panel, 72 x 48 in.

Indeed, that responsibility spreads far beyond the supply chain, once environmental issues are taken into account. The idea that a gas-guzzling SUV is the right vehicle for the school run is an example of collusion between consumers and marketers that results in damage to the entire planet.

Fact 3: *In 2008, Starbucks was the world's biggest buyer of fair-trade coffee.*

Fact 4: *In 2008, only 5% of the coffee purchased by Starbucks was fair-trade certified.*

Around the same time that business ethicists were waking up to the combined responsibilities of the marketer and the consumer, companies discovered Corporate Social Responsibility, known today as CSR. Marketers were delighted. In their ever more sophisticated world of branding, and within a zeitgeist of increasingly individualized consumption, they seized the opportunity. By promoting the social and environmental good of their products, no matter how tenuous the logic, they would assuage their customers' consciences—and sell more.

As a recent paper in the *Journal of Business Ethics* put it, "CSR is one of the most commonly used arguments for constructing brands with a differentiated personality which satisfy consumers' self-definitional needs." The trouble was, the brands didn't always match the upstream realities in a supply chain with values as mixed as its metaphors.

Inevitably, there was a backlash. Accusations of window-dressing and "greenwashing" abounded. There were even ironic awards for the least credible companies. According to one study, there were four times as many consumer boycotts in Western democracies in 1999 than in 1994. It is probably no accident that these years coincided with the rise of the world wide web. The Internet provides the perfect vehicle both for questioning corporate messages and for orchestrating action against offending companies.

Marketers reacted in the only way they knew: with communications campaigns. When Walmart was facing criticism for working conditions in supplier factories and in its stores, for its impact on the high streets of local communities, and for its poor environmental record, the company launched a major public relations campaign that presented Walmart as a good corporate citizen in the communities where it operated.

However, this didn't put an end to the criticism. Nor should it have. PR campaigns

do not solve fundamental structural problems. Marketers must find a solution that fully addresses supply chain issues—at least if they want to embed CSR in their brand values in a credible way. In short, they must start to take a "stakeholder" approach that encourages a new type of responsible consumerism. Crucially, this new approach requires marketing professionals to look up the supply chain to manufacturing and shipping, down it to the sales force and the consumer, and outside it altogether to the communities on its borders and to the environment as a whole.

Broadly speaking, stakeholder marketing involves the design, implementation, and evaluation of marketing initiatives that will maximize benefits to all stakeholders: customers, employees, shareholders, suppliers (all the way up the supply chain), as well as the environment, society in general, and related non-profit organizations and their beneficiaries. Stakeholder management theory has been around since the 1980s, but (in contrast to CSR) marketers have been slow to seize the opportunities it offers. And stakeholder marketing is largely absent from the academic literature, which still seems to take its cue from Ted Levitt's seminal paper on "marketing myopia" of 1960. It is almost as if his exhortation to focus on the customer has become a lesson too well learned by theoreticians and practitioners alike over the intervening half-century.

Yet we believe that marketing, more than any other business discipline, is uniquely positioned to help both companies and stakeholders achieve and benefit from a more symbiotic relationship between business and society. Marketing's privileged relationship with the mind of the consumer, combined with its sophisticated research and communication techniques, makes it the key link in CSR's supply chain. That's not to say that manufacturing, finance, purchasing or logistics professionals have no part to play. It's just that marketers are probably best placed to take the lead. They have always been "boundary spanners", working at the interface between corporations, customers, and competitors. Spanning a few additional boundaries shouldn't be hard for them.

Fact 5: *In September 2010, a consortium led by British supermarket chain Waitrose was awarded a £200,000 ($320,000) grant from the UK government's aid agency to train Kenyan bean farmers in sustainable agricultural methods.*

Fact 6: *Kenya's delicate green beans have to be air-freighted into British supermarkets—a form of transport that emits more greenhouse gases per food-mile than any other.*

Of course, we're not suggesting that forging a new role for marketing, one that addresses the needs of each and every stakeholder, is possible, let alone easy. The pair of facts above serves to underline the complexity of the situation. But in practical terms, established techniques can help marketers succeed where others have failed: for example, by mapping key secondary stakeholders (media, government, consumer groups, competitors, NGOs), as well as more obvious primary stakeholders (customers, shareholders, employees, local communities).

Realistically, marketers cannot serve all of the stakeholders that they identify. But in mapping the relationships between them, they will discover that some are more important to their business than they at first imagined. The Kenyan bean producers mentioned above, for example, suddenly become much more salient when their relationships with government aid agencies (and by extension the media) are revealed.

Marketing is uniquely positioned to help companies and stakeholders achieve a more symbiotic relationship

Even if a company's stakeholder map does not lead to any startling new discoveries, the mapping exercise puts the company in a better position to make tough choices. Perhaps in this example the environmental issues raised by air freighting will have to take a back seat to the needs of agricultural communities in the developing world, at least for the foreseeable future.

Once African farmers are identified as important stakeholders, market research techniques can be used to explore their expectations and issues—and subsequently to measure the impact of any stakeholder initiatives implemented. Marketing skills could also be used to engage the farmers, and even to reach out to less friendly stakeholders, such as the activists who may have exposed the company's poor sourcing practices. Finally, marketers have the communication skills required to embed a stakeholder-centric attitude in the rest of the organization.

With support from the right quarters, in particular from the CEO, this new approach could cascade from the marketing department throughout the entire company—perhaps even persuading the accountants to implement the much-discussed but comparatively little-practiced "triple bottom line", which takes into account "people" and "planet", as well as "profit". In any event, stakeholder marketing could well lead to benefits for that good old-fashioned single bottom line; "doing well by doing good", as it's commonly put.

Looking up the supply chain, there is no doubt that innovative fair trade schemes will be a key component of the new stakeholder marketing. FINE, the international federation of fair-trade networks, defines fair trade as "a trading partnership, based on dialog, transparency and respect, that seeks greater equity in international trade. It contributes to sustainable development by offering better trading conditions to, and securing the rights of, marginalized producers and workers." It's a loose definition, crying out for innovation and creativity.

By adopting a new name, perhaps ethical consumerism can be seen as less niche and more mainstream

Once the province of NGOs who sought to challenge multinationals, fair trade has now been embraced by large corporations like Unilever. According to the company's website: "Consumers around the world want reassurance that the products they buy are ethically sourced and protect the earth's natural resources. A growing number are choosing to buy brands such as Rainforest Alliance Certified Lipton tea [and] Ben & Jerry's Fairtrade ice cream."

In fact, it seems that Ben (Cohen) and Jerry (Greenfield) were an important influence on Unilever's new Sustainable Living Plan. Sold to the multinational a full decade ago, their values-driven brand has not only survived but has been increasing its use of fair-trade ingredients. Greenfield, though no longer a manager, remains an advisor and brand ambassador and says that Unilever executives have been remarkably proactive in learning from their model. Indeed the ambitious new initiative has fifty concrete targets within three broad objectives: to help more than a billion people improve their health and well-being; to halve the environmental impact of Unilever products; and to enhance the livelihoods of hundreds of thousands of people in the supply chain.

This is clearly a move in the right direction. As customers, we depend on marketing professionals not only to tell us about better corporate behavior but also to encourage it to happen. Significantly, two of the most senior executives at Unilever have their pay tied to meeting the fifty targets of the Sustainable Living Plan: the CEO and the Marketing and Communications Officer.

Moreover, we believe that marketers have the skills and the connections to go one step further and contribute to a whole new

Ron Eady, "Over Rosseau 2", encaustic on panel, 25 x 50 in.

phenomenon that reaches far beyond their companies: "responsible consumerism". If you like, it's a different kind of CSR: "Consumer" Social Responsibility. Yes, it's time to travel back down the supply chain and return to that consumer conscience of yours. Did you really think you could escape it?

Fact 7: *In October 2010, the world celebrated as 33 Chilean copper miners emerged from the underground depths where they had been trapped for over two months.*

Fact 8: *Since 2000, an average of 34 people are reported to have died in Chilean mining accidents every year.*

There has, of course, been much talk over recent decades about "ethical consumerism". Broadly speaking, this refers to the purchasing of products and services that have been produced, marketed, and distributed ethically. In practice, it means giving preference to goods and services made and delivered with minimal harm to humans, animals, and the natural environment… or boycotting those that aren't.

There have been abundant surveys about ethical consumerism. For example, in 2009 *TIME* magazine reported that almost 50 percent of Americans said protection of the environment should take priority over economic growth; 78 percent of those polled said they would be willing to pay an extra $2,000 for more fuel-efficient cars. But these statistics were not reflected in real-world sales figures. As we have learned from opinion polls down the ages, wishful thinking, self-delusion, and the desire to please pollsters are all natural human behaviors. To be fair, recessionary forces are currently pushing consumers into particularly price-sensitive decisions; long-term savings and reduced environmental impact inevitably take second place to short-term cost control. And perhaps that's the responsible course of action for many individual consumers in the circumstances.

Indeed "responsible consumerism" might be a better, more broadly-applicable label than "ethical consumerism". By adopting a new name (an old marketing trick, as it happens), perhaps ethical consumerism can be seen less as a niche phenomenon and more as a mainstream reality. For too long scholars and practitioners alike have tended to see "ethical" consumers as a discrete, small market segment waiting to be captured. In

Ron Eady, "Squall no.1 to 4", encaustic on panel, 16 x 16 in. each panel

reality, human beings are not that simple. Consumers are not rational actors who will respond consistently to responsible supply chain practices and related marketing communications. We know (alas, from personal experience) that the feel-good purchase of organic local produce today can give way to the temptation of a fast-fashion or high-tech bargain tomorrow. The high price of the former can even be used to justify the sweatshop price tag of the latter.

By broadening the discussion from ethical to responsible consumerism, marketers and those who do academic research into marketing also become less exclusive. "Responsibility", unlike "ethics", does not sound as if it is uniquely reserved for some liberal or intellectual elite. As Jerry Greenfield recently put it, "Nobody wants to buy something that was made by exploiting somebody else." Responsibility is a concept for everyone: from the teenager shopping over the Internet to the grandparent in the neighborhood store, from the janitor in the basement to the CEO in the corner office.

Of course, that CEO has a special part to play. There is no doubt that responsible consumerism has to be co-created by corporations and led by people at the top. But the marketing director and team have essential roles too, in educating, empowering and transforming existing consumption habits—and thus influencing colleagues in production, logistics, purchasing, and finance… and so on, all the way up the supply chain.

Indeed, if it's true that many forms of social and environmental harm scattered along the supply chains of multinational corporations are triggered by marketing decisions in the first place, then it can also be argued that marketers have a moral duty to change existing practices, wherever they occur. Marketers must move center stage in the debate on CSR—albeit with a chorus of NGOs, consumer groups, scientists, governmental bodies, and others behind them—if responsible consumerism is to become a mainstream phenomenon.

Ultimately, however, your conscience will be the most important factor in making responsible consumerism work. With responsibility comes complexity and uncertainty (such as whether or not to drink your favorite Starbucks skinny latte for fear that it isn't fair trade), but with the help of marketing professionals concerned about all stakeholders, you can be steered through the moral mazes to the right choice. And if there is no right choice—as those pesky green beans seem to demonstrate—at least you'll be able to make a reasoned decision based on your own values and the correct information.

Asking just how green a green bean has to be is just the beginning, though. Another question for consumers, marketers, and academics is how far along the supply chain consumer conscience has to stretch. We

believe that the more responsible consumers become and the more stakeholder-oriented marketers get, the farther we can go—right to the raw materials. But first we have to break out of the old vicious circles and into new virtuous circles somewhere downstream. It is possible for marketers and consumers to collude in doing the right thing as well as the wrong, if only they can ask honest questions of each other and of the supply chains in which they form links.

One thing is sure. Your iPhone (substitute your own model as appropriate) connects you to many more people than there are in your contacts list. Via its copper circuitry you are not only connected to factory workers in China, but also to miners in Chile, as well as to marketing staff in California. Just by having the imagination to make these connections, you and your conscience are taking a step in the right direction.

N. Craig Smith is the INSEAD Chaired Professor of Ethics and Social Responsibility at INSEAD, the leading international business school with campuses in France, Singapore, and Abu Dhabi. **Elin Williams** is a freelance writer based in Oxford. The article is based on two academic papers: "Marketing's Consequences: Stakeholder Marketing and Supply Chain Corporate Social Responsibility Issues", published in *Business Ethics Quarterly* in October 2010 and co-authored by Smith with Guido Palazzo and C.B. Bhattacharya; and "The New Marketing Myopia", published in the *Journal of Public Policy and Marketing* in spring 2010 and co-authored by Smith with Minette E. Drumwright and Mary C. Gentile.

For more on Craig Smith, visit http://www.insead.edu/facultyresearch/faculty/profiles/scraig/

About the artist

Ron Eady is a Canadian artist based in Burlington, Ontario. His encaustic painting technique involves, as he describes it, "a repeated process of painting, burning and scraping", which allows his images to gradually evolve until judged complete. Observed Henry Lehmann in Montreal's *The Gazette*, "Quite possibly, the true meaning of any one of Eady's brooding panels is simply in the paint, and in the power of physical pigment to transcend itself and attain a purely visual state, full-bodied, yet entirely without physical being." Eady has exhibited internationally in Los Angeles, New York, Japan, and the Netherlands; his other works can be viewed on his website: http://roneady.com/

Marguerita Bornstein, "Orgasmo/The Spiral", 1983-84
Used as an avatar by Brazilian social networking site Peabirus
(http://www.peabirus.com.br/)

Composer in waiting

Elizabeth R. Austin's music is meticulous and complex, filled with movement, growth, and turning points. Not a bad description for her own life

BY MICHAEL K. SLAYTON

ART BY MARGUERITA BORNSTEIN

That the United States supports an astonishingly large number of composers has been a fact repeatedly remarked upon, especially since the middle of the twentieth century. This is a large country with a large amount of musical activity, and almost all of that music requires composers. From concert music to popular music, from film scores to the soundtracks of computer games, from jazz to hip-hop, the idea of what it means to be a "composer" finds itself covered by an ever-widening umbrella. Yet perhaps ironically, it is the act of composing classical concert music that is today the least understood, or the least "required", of all the forms. In a society that judges quality in terms of album sales, it is often difficult for composers of art music to compete. No longer able to support themselves simply through commissions and appearance fees, concert music composers are more likely to be university professors, researchers, or entrepreneurs, who write music simply because they feel called to do so.

A further complication is the fact that the profession of composing has almost always been male-dominated. With the exception of a few scattered bright lights (Hildegard of Bingen, Amy Beach, Clara Schumann, and


Marguerite

Germaine Tailleferre spring to mind), music history textbooks are saturated with stories of the "great men" of the compositional world. Of course, this has had much to do with the cultural climates and social stigmas of those times, which have been gradually fading. But as recently as sixty years ago, many of those attitudes had not yet changed. Inside the walls of academia, heroic efforts have been made to give female composers their proper due, efforts led by pioneering scholars and writers like JoAnn Skowronski, Carol Neus-Bates, Karin Pendle, Diane Jezic, Jane Bowers, and Judith Tick. But for many listeners outside of academia, the question yet lingers: are women writing music? If so, why don't we know more about it? If not, why not?

For the past ten years, I have had the pleasure to work closely with the extraordinary composer Elizabeth R. Austin. I studied her music, accompanied her to concert premieres, travelled through Germany with her and visited the locations in which she began her career. My time spent with Austin and her music drew all of these questions and more to the foreground —questions pertinent to an understanding of the shifting societal and artistic landscapes of our more recent history. What exactly is the state of American culture concerning women who seek to develop careers as composers? What stories would other women tell, who like Austin had chosen this path in the early 1950s? What about now? How have things changed over the past sixty years? Are there things that haven't changed? And how might such issues be addressed without drawing further, undesired attention to gender differences? Elizabeth Austin's personal story is not one of great struggle, tragedy, or loss, nor is it a story of malevolent gender bias or discrimination. Her story isn't melodramatic. For these reasons, it represents a particularly salient control sample of what the culture was like for the typical middle-class young woman who chose an unorthodox path in a time characterized by slow change.

During a dinner party, Boulanger suddenly asked her to improvise a piece of music in front of everyone

Born in Baltimore in 1938, Austin's earliest musical memories include studying piano and composing her first piece (a lullaby for her baby brother) when she was seven years old. By the age of ten, she was attending the Peabody Preparatory Department, and at age thirteen, music educator Grace Newsom Cushman invited her to begin summer studies at the Junior Conservatory Camp in New Hampshire. "Cushman was unique in requiring her students to hear, play, sing, and write building blocks of sound," says Austin, "to think in time, to stand outside the sound as well as to inhabit it. I owe this woman the acquisition of a good ear. And at an age where I was beginning to realize the aural images in my mind, she gave her students the only temporal power worth having: the power to communicate and enhance the measure of beauty on this earth."

By the age of sixteen, Austin (then Elizabeth Rhudy) had already won several awards for her compositions, but it was during her studies at Baltimore's Goucher College that a single fortuitous event would pitch her headlong into the composer's life: when Mlle. Nadia Boulanger, arguably the most influential and important music teacher of the past century, came to visit the school. Upon hearing Austin's "Rilke Lieder" in an evening student concert, an impressed Boulanger offered the (now) nineteen-year-old a scholarship to study at the prestigious Conservatoire Americain in Fontainebleau. Her parents sent her to France despite the significant financial strain the voyage placed upon the household. The composer recalls that family and friends sparingly projected a "dutiful sense of being impressed" by her many accomplishments, including Boulanger's unpredicted invitation, but more

often than not they seemed rather puzzled about the surrounding stir. Most of Austin's younger life was spent in this type of artistic turmoil; she found herself overachieving, not only in music but also in academics, in an attempt to engender some form of supporting reaction from those close to her, while choking back her own private insecurities over the prodigious opportunities afforded her.

Studying at the piano of Boulanger was an intimidating experience for any young composer, and for Austin the experience was no less so. Not only was she treading in the footsteps of Elliott Carter, Aaron Copland, Louise Talma, and Virgil Thompson, she was also confronting the social stigmas of that era—and the remarkable fact that Boulanger herself openly discouraged women from pursuing musical careers. Because of her excellent training, Austin felt well-equipped to brave the challenges of her lessons with Boulanger, but she soon began to understand that she would be continuously pressed to strive for revelations above her own present cognitive powers. For example, Austin tells of one occasion during a dinner party for several of the area's social elite, when Boulanger suddenly asked her to go to the piano and improvise a piece of music (in front of everyone) utilizing all the possible diminished seventh chord resolutions. These sorts of surprises were commonplace; and though Boulanger was pleased with Austin's musical abilities, she could also be hard and discouraging when dealing with Austin as a young woman.

Marguerita Bornstein, Sketchbook series, 2004

> I will never forget a time in Fontainebleau when my friend Ruth and I strolled along a path, apparently in full view of Boulanger, with a young man whom we had met on board the boat we took to France. Within the very next lesson the event was brought up. Boulanger said to me, her voice marked with disdain, "My dear, go home and have eight children!" I was crushed. Of course she wasn't actually telling me to leave; she was making a point about priorities. But comments such as that leave their mark.

Upon returning from France, Austin finished her diploma at Goucher College. After graduation, she continued to live at home with her recently widowed mother, while teaching in the Baltimore public school system (a compulsory choice – there were few options for women, and Austin needed a way to support herself). Within a year, she

Even after almost fifteen years of studying Austin's music, I am still surprised by its wealth and depth

was married, as was prescribed by the time. The birth of twins in 1962 was at the same moment a source of joy and, undeniably, a mammoth roadblock in the budding composer's career. A third child was born into the family six years later, and the next eleven years were spent nurturing her family. In 1979, Austin decided to continue her education, a rational decision to ensure her family a means of secondary support. She enrolled in the University of Hartford's Hartt School of Music with the purpose of obtaining her state public teaching certification; in doing so, however, she found that she had reopened Pandora's Box: "the true self-centering of learning and its accompanying ecstasy," as she describes it. It was a signal point in time for Austin as a composer, and suddenly an unbounded rush of music began to pour forth. Austin's Zodiac Suite for piano solo (1980) was her breakthrough work: a monumental, virtuosic eruption, laden with fifteen years of pent-up fury and wonder. Austin has called the Zodiac acerbic, penetrating; this was her moment of rebirth, and deep down she knew it was likely coming at a price.

She candidly acknowledges that during this phase she became distant from her domestic priorities, succumbing to the lure of the arts—"that fiercesome lure which Thomas Mann describes," says Austin, "not romantic, actually quite unpleasant and painful for surrounding and unsuspecting family." She finished her masters degree in music composition and immediately began a Ph.D. program at the University of Connecticut. Before long, the rigors of graduate studies, the demands of professional work as an organist and a teacher, and the challenges and chaos of home life, forced the end of Austin's first marriage. But she persisted with her music, steadily working and writing, and several pieces were born out of the subsequent period of relative seclusion. After the Zodiac Suite came the string quartet Inscapes (1981), Christmas the Reason (1981) for women's choir and amplified piano, and The Song of Simeon (Nunc Dimittis) (1983), for mixed choir and organ.

> I had always considered it a cheap shot to empower myself as 'artist,' having been raised in an enlightened but quite middle-class family circle. Bach's image was my guide; he never put on the air of pseudo-artist, but went about his composing as his life's work and calling. … The 'pearl of great price' is always in the back of my mind as I write music. How many friends and family did I hurt, as I pulled away towards my own center; and how does one ever redeem this act?

Austin's career moved steadily forward in the 1980s and 90s; she won several awards and honors in the years following for pieces such as the Cantata Beatitudines (1982), Klavier Double (1983), and her Symphony No. 1, "Wilderness", which was performed by the Hartford Symphony in 1987. As the socio-musical climate grew more tolerant of a variety of musical styles, Austin discovered new opportunities for herself as a composer. She remarried in 1989 and in June of that year, GEDOK (Society of Women Artists in German-speaking Countries) sponsored a retrospective portrait concert of her music in Mannheim. Performances of her works were also given in Fiuggi, Italy and Rheinsberg, Germany, as well as in Virginia, Nebraska, and Connecticut. By the turn of the century, Elizabeth Austin had established herself as one of America's distinct compositional voices. "[German poet, dramatist, essayist, and librettist] Hugo von Hofmannstahl believed in three things, essentially," says Austin, "'*Durch das Werk, durch das Kind, durch die Tat*' ('Through your work (art), through a child, through action'). Your life

can be justified by any one or all of these things. I believe that." And though it has taken Elizabeth Austin nigh upon fifty years to finally feel "justified through her art", it was worth the wait.

Now at age seventy-three, we might expect Austin to be in a time of reflection, making customary over-the-shoulder glances at life, taking inventory of the journey. But this is no customary woman. She is in fact facing ever-forward, making up for lost time. She is the organist and choir director at her church. She walks several miles each afternoon with her neighbor's dog. She creates piano pieces for children. She is a grandmother to four adoring grandchildren. She is writing an opera. Elizabeth Austin is in motion—it might be more appropriate to say that she is reflecting everything around her.

Turning specifically to Austin's music, I have to start by saying that even after almost fifteen years of studying it, I am still surprised by it—by its wealth and depth, its austere beauty. Hearing Austin's music creates a desire to understand it. Juxtaposed within its walls are the zealous strains of unbridled Romanticism, seemingly impenetrable dissonances, and sudden flashes of lucid, tonal clarity. Her writing is meticulously constructed, and it is no small undertaking to expose the compositional processes which synthesize her works.

When I am asked to discuss Austin's compositional style, I inevitably turn to several specific elements that create the distinct "Austinian" sound. She employs a harmonic system of her own creation—a crafted intertwining of minor sixths and minor thirds that generates an array of harmonies dutifully struggling to avoid the perfect fifth and especially the perfect octave, thereby promoting Major sevenths and Major ninths to what Austin calls "the new octave"; that is, the liberation of the octave—like Schoenberg before her, Austin believes that avoidance of perfect intervals (especially octaves and fifths) is a gateway to creating structured and coherent non-tonalism. Instead of the octave C–C, for instance, the minor sixth/minor third system instead generates C-B or C-D.

Though this is arguably an intellectual approach to musical creation, the system generates an astonishing level of grace and beauty. Part of its beauty is aural, aesthetic—but part of it derives simply from cohesion. Even if the ear doesn't quite understand what it's hearing, the brain gently affirms that all of the sounds somehow "belong together", born of the same mother. For the listener, then, the experience is at the

Marguerita Bornstein, Scherzo series, 2003-06

same time challenging and comforting.

Austin's music also betrays a penchant for literary catalysts; indeed, many of her pieces feature embedded recitations from writers such as Goethe, Kleist, and Rilke, pieces like the haunting Rose Sonata (2002), Wie Eine Blume (2001), and Ginkgo Novo (2002). These particular pieces shed light on yet another of Austin's stylistic traits: turning botanical structures into musical ones. Ginkgo Novo, for instance, asks the performers (English horn and cello) to physically move around on the stage, coming together only at the end, celebrating the natural phenomenon of the ginkgo biloba leaf, which is born in two halves that gradually, over the span of their existence, fuse themselves into a single entity.

Austin's intense belief in the governing principles of the Fibonacci series and Golden Mean are evidenced by many of her works, but nowhere more so than in her famous Homage for Hildegard (1997). Its meticulous construction demonstrates Austin's understanding that true fidelity to the philosophies of Hildegard of Bingen must involve a supreme awareness of the mystical properties of balance and proportion. She makes painstaking efforts to approach the symbolism of Hildegard's era, to create music which not only honors the sacred feminine equilibrium of the pentacle star, but likewise celebrates the timeless rule of the Golden Mean.

Austin's music isn't quite atonal in the tradition of the Second Viennese School (e.g. Schoenberg, Berg, Webern), but due primarily to the minor sixth/minor third system, there is virtually no sense of harmonic centering within its walls. Indeed, this music seems strangely balanced unto itself, often relying entirely upon non-harmonic entities to engage the ear. It isn't difficult, therefore, to imagine the aural shock and surprise of suddenly encountering an excerpt from Schubert or Schumann, replete with the strong melodic content and angular harmony of the German Romantic style. This is just one example of what is perhaps Austin's most distinctive compositional trait: a technique she calls "windowpaning."

Windowpaning is a quotation technique, in which Austin embeds musical passages from the past into her own work. Somewhat similar to techniques of "sampling" in popular music, Austin's idea is to pay homage to the past while retaining a contemporary voice. This makes perfect sense for her, as the entirety of her harmonic palette is one in which opacity adjoins clarity and the traditional is freely juxtaposed with the unconventional. "I use the word non-tonal versus tonal," says Austin, "because this is, in my music, an agent for contrast. This is the way I approach tonality, to set it against a non-tonality. I think we are all looking for this balance, but how do we approach it?"

The importance of windowpaning to Austin's oeuvre is inestimable, as works such as A Birthday Bouquet (1990), Puzzle Preludes (1994), American Triptych (2001), and A Celebration Concerto (2007) are all constructed around the central idea of incorporating the music of the past into the fabric of the present. Austin is seeking to create a channel through which quoted passages actually become the alternative sonorities, if due only to their stark relative consonance. As threads of musical nostalgia are woven in and out of Austin's contemporary tapestry, they create fleeting moments of revelation.

It isn't difficult to imagine the aural shock of suddenly encountering an excerpt from Schubert

> What engages me is to so imbed tonal quotes in a non-tonal or pan-tonal fabric that what has sounded familiar becomes transformed into something regarded as foreign and invasive. It is as though the body allows the cunning invader, wrapped in recognizable guise, to catch it off balance. The musical

remembrance exists without expansion, but it is made eccentric through this adjacent pane technique. My aim is for the contemporary sounding fabric to begin to sound "right" to the listener and the tonal quote to sound oddly out of place.

Austin's Symphony No. 2: "Lighthouse" (2002) is a premiere example of all of the above-mentioned stylistic traits, but especially of the windowpane technique. The piece was conceived after Austin visited the Watch Hill lighthouse in Westerly, Rhode Island. The building has undergone several renovations over the past two centuries, the last one in 1986 when its automated rotating light was installed. Watch Hill has been a Mecca of sorts for Austin, a place to which she is continually drawn to meditate on its mysteries.

It isn't difficult to imagine Elizabeth Austin in this setting, sitting in reflective quiescence, facing a red-orange sunset over the water. In the distance, from the tower on the hill shines a beacon of light, slowly swinging around, closer and closer, then rushing over in a rapid, flashing moment—and gone. But the watcher will wait for the next pass, for the next moment. And as the sunlight fades, the beacon becomes the single focus; all else disappears into darkness. The imagery is vivid; we may put ourselves in that moment and see the colors and hues, our mind's eye watching the lighthouse, anticipating its unhurried light. But the penetrating question is: can we *hear* it? This was Austin's task.

> Naming my first chamber CD Reflected Light underlined my lifelong preoccupation with vibrational energy, with one's self as a spiritual vessel through which this divine spark might move. As I spent many summer hours at the ocean, taking in the Watch Hill Lighthouse and listening to the bell buoys at close proximity, I was drawn to the power of that arc of light, that beacon which seemed to illuminate the waves. If there were musical snippets in that choppy water, the all-embracing light would pull them towards it... would unify and merge them in that silken surf!

Marguerita Bornstein, Scherzo series, 2003-06

Within the first movement alone, one hears such "musical snippets" from Barber (Dover Beach), Debussy (La Mer and L'isle joyeuse), R. Schumann (Liederkreis), Schubert (Die schöne Müllerin), and Mozart (Requiem). Interestingly, all of these quotes share two distinct attributes: first, they all relate to water in some way, and second, they each contain the same tiny musical cell, a half-step constructed with the pitches A-G#. This particular sound is Austin's representation of the "Doppler effect" as the

rotating beam of the lighthouse sweeps past the listener. In the first quotes one hears, the direction of this musical cell is always descending, falling (literally A down to G#); but near the middle of the movement, there is a turning point, after which the direction turns upward (G#-A), and the quotes after that point celebrate a new hopeful, rising direction.

And so Austin's particular selection of quoted materials in the movement provides insight not only into her musical reasoning, but also her spiritual approach to the lighthouse as life-metaphor. If the falling half-step represents the doubts, struggles, and apprehension of her early life, while she waited for the light to turn, the antithetical rising motives must symbolize the successes of middle life, representing the joy of emerging, stretching, and growing, of living in the light's radiant beam. We are left, then, wondering what questions remain unanswered for Austin as the movement abruptly closes in sudden, unanticipated silence. What is the great mystery of the Lighthouse? What secrets does it hold for the composer? Do these windowpanes of the past mirror instead Austin's own reflection, looking out?

Continuing to compose daily, Austin recently completed Brainstorm (for concert double bass and piano) and a clarinet quartet entitled Weep No More. She is currently devoting most of her time to her first opera, which is based on Kleist's The Marquise of O. Austin continues her teaching and her service as organist and choir director at St. Paul's Church, while still finding time for involvement in Connecticut Composers, Inc., diligently searching for venues to showcase the talents of its membership.

In Elizabeth Austin we find a distinct American voice. Analysis of her works demonstrates unswerving dedication to compositional craftsmanship coupled with artistic passion. Her approach to composition is simultaneously simple and complex, austere yet gracefully personal. As Austin's music continues to reach audiences around the world, it is undoubtedly her hope that in this there may be a positive reaffirmation of artistic goals, and that the lesson found within her writing will make itself evident to listeners: that compositional craft and individual personality can and must meld into one entity, enlarging the boundaries of human understanding, to touch the divine.

Michael Slayton is Associate Professor and Chair of the Department of Music Composition and Theory at Vanderbilt University's Blair School of Music. His music (published by ACA) is regularly programmed in the U.S. and abroad. Since moving to Nashville in 1999, Slayton has received numerous commissions for choral, solo, and chamber works, including two works for the Nashville Ballet's "Emergence" project. A member of the American Composer's Alliance, Society of Composers, Inc., the College Music Society, Connecticut Composers, Inc., and Broadcast Music Inc, Slayton is an active participant in the national and international music community.

Much of the material in the essay above has been drawn from *Women of Influence in Contemporary Music: Nine American Composers* (Scarecrow Press, 2010), a book detailing the lives and music of several of America's notable women in composition. Slayton served as editor-in-chief for the volume and author for chapters on Elizabeth R. Austin and Cindy McTee. Other featured composers include Susan Botti, Gabriela Lena Frank , Jennifer Higdon, Libby Larson, Tania Leon, Marga Richter, and Judith Shatin.

Elizabeth R. Austin, *en personne*

Excerpted from *Women of Influence in Contemporary Music: Nine American Composers*

Michael Slayton: *Could you talk about your return to America after the time with Boulanger? What did you do?*

Elizabeth Austin: I had no guidance and absolutely no wherewithal. My widowed mother, despite her pride in me, discouraged a professional career as a composer, and I also felt partially responsible for her well-being. The late fifties was a traditional time. The world had not changed, and we had traditional roles. I lacked the tenacity or the audacity to rise above my middle class destiny, and I had little means. So I compromised. I realized that my two younger brothers needed the financial attention for their college education, and that I was more or less expected to move on. I had to have employment, so I obtained a provisional public school teaching certificate. I taught school music during the day and took graduate courses toward a teaching certificate at night. Then I was married, and within ten months I had the twins. That really put a stop to my career for a while!

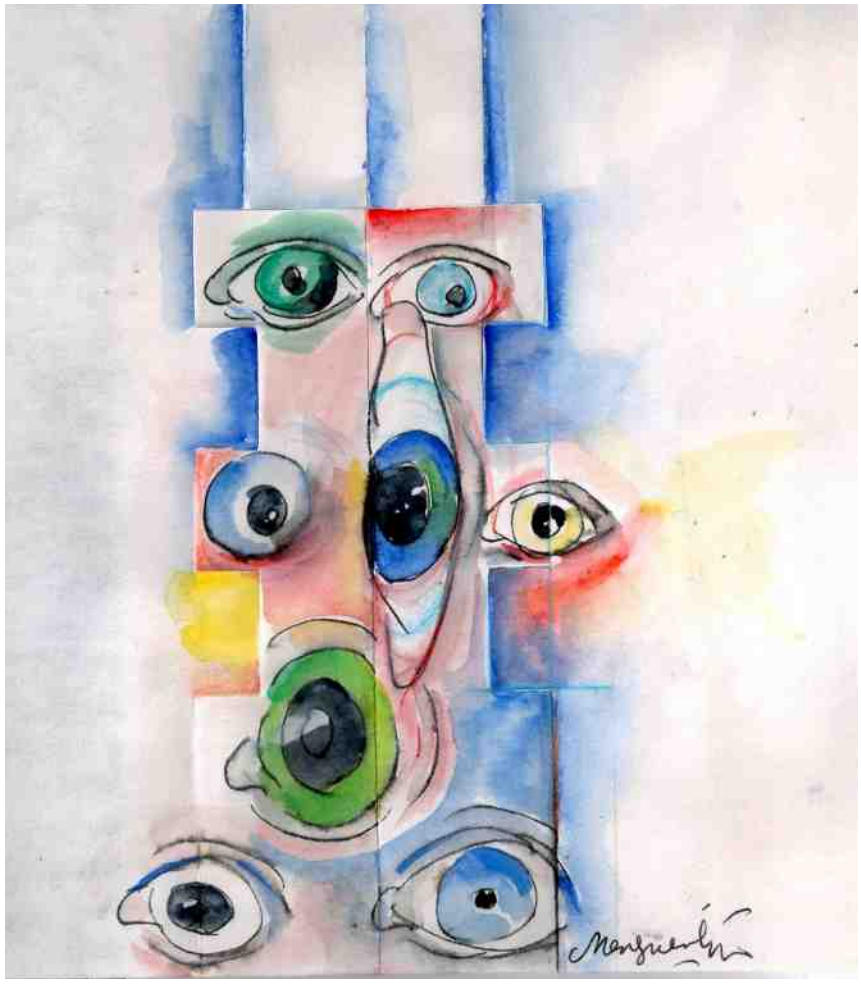
Slayton: *An escape into marriage?*

Austin: Perhaps—if so, I am certainly not proud of this—I had thought to disprove my beloved Mlle Boulanger, and here I was! I already had creative fire burning, but it had to wait until I had raised my precious daughter, one of the twins, who suffered so terribly from debilitating asthma. One cannot write music when listening for the nightly wheezing of a poor asthmatic, struggling for each breath. Of course I have no regrets today; but remember: with three children, I diapered my way through the revolutionary sixties.

Slayton: *And when your children were older, did you feel yourself to be re-birthed, so to speak?*

Austin: Yes, I emerged again on the other side and did not realize, luckily in a way, that the world had changed so. Here I was in my forties, with a glaring hole in my resume, and I became starkly aware for the first time in my life that my primary identity, like it or not, was one of composer. Up until this time, I had consciously and unconsciously devalued my basic *raison d'être*—having children made this lack of priority so much easier. My generation did not have a Betty Friedan until we were in our mid-twenties and already in maternity clothes. Reading *The Feminine Mystique* in the early 60's was tough to do, between doctor visits and diapering. May I repeat, however, that without the remarkable

Marguerita Bornstein, EYES series, 2002-03



and rewarding experience of sharing parenthood, I'm not totally certain I would have felt such an irresistible compulsion to return to composing later in life.

Slayton: *How does one champion women artists/composers without marginalization? Or without becoming such a champion that one loses a correct vision of the art, simply due to the gender of the artist?*

Austin: Well, gender should never enter into music composition. In music, the difference is in the end product, the quality of the creation; with gender, there is no difference in the end product, only in the processes. But to refuse to admit that there exist differences between the chronology of a male and a female is rather to have one's head in the sand. Life is biological, isn't it? A woman at the end of her life often looks at her supposed creation as her children; for a man it is typically his work. If the woman looks at her life's work as her important output, does that devalue her devotion to her children? If she doesn't, does that devalue her work? In whose eyes? I don't consider that women have ever been crybabies—there has certainly been a difference in the programming of music, but the stride that has been made is the realization that gender has absolutely nothing to do with quality… I simply don't honor the attitude that if one is an intelligent woman (composer, scholar), one must be militant and ever on the offensive, seeking to knock male composers down a peg in order to rise as woman. It's not in my nature. Obviously, there has been a problem, and hopefully, we're on the road to recovery, but there are lingering questions.

Slayton: *Ageism is an issue for many composers, and I think it is rather linked to those lingering questions.*

Austin: At least for me, this is a more difficult problem even than the gender issue. There are many competitions, for instance, for the so-called emerging composer. What does that mean? Shouldn't competitions be searching for the best music, regardless of age? So many composers emerge late in life. I don't want to sound like sour grapes, but this is tough for many of us. We paid our dues; we've devoted ourselves to family, children, marriage… And now, when there is finally time to get down to the serious business of writing all of this music that has been taking root for years and years, we are told we are too old to emerge. It is, yes, in a way, related to gender, because it is societal that men do not typically stop their careers for children. But men also have ageism issues to face. So it is a problem for everyone, but a particularly knotty one for women.

Slayton: *How do you think these sorts of issues will affect young women who are studying composition in the twenty-first century? What do you see for their futures?*

Austin: Thanks to the fine efforts of IAWM [the International Alliance for Women in Music], New York Women Composers, GEDOK, etc., women composing today have a broader support system upon which to call for various questions, such as which orchestras are more sympathetic to women composers, which publishers accept music from women more readily, and so on. Online websites offer daily chats regarding practical and scholarly matters related to composing. Frankly, many significant women composers didn't bat an eye at gender issues but simply proceeded to communicate ardently. The militancy of earlier times has been ameliorated today by the same seriousness of purpose on the part of women artists, only now coupled with the realization that composers of both genders must unite to find a way to promote new concert music, especially in America.

Marguerita Bornstein, "Birds, Butterflies, Flowers", 1995

Marguerita!

Marguerita Bornstein is the kind of person whose need to create, and whose talent for it, spurs her to work across a range of forms. Illustrator, animator, painter, sculptor, photographer, and mixed media artist, she has been lauded for drawings that have graced the covers of major magazines and for her contributions to art exhibitions.

The child of Holocaust survivors, Marguerita was born in Sydney, Australia in 1950 but subsequently grew up in Brazil. She began her career as a commercial artist remarkably early, selling her first drawing at the age of nine (to Rio's *Correio da Manha*), earning a living as an illustrator from age thirteen, and (at twenty-four) creating the animated title sequence for the phenomenally successful Brazilian drama *O Rebu*. Invited to work in New York in 1976 after being profiled in *Graphis* magazine, and sponsored into the United States by luminaries like *New York Times* art director Louis Silverstein, art critic Robert Hughes, and preeminent graphic designers Herb Lubalin and Milton Glaser, Marguerita has since illustrated book covers for Viking, designed posters for *The Village Voice*, and contributed covers and drawings for *The Nation*, *Vogue*, *Harper's*, and other publications.

Marguerita's recent work spans both the commercial and the fine arts. Considered as a whole, her vividly-coloured pictures offer a fascinating and often provocative combination of surrealism, ghostly overlaps, and iconography. "Her quality is rather sheer mischievousness coupled with a good measure of sparkling gaiety," observed *U&Lc Magazine* in 1977. This seems as true today as it was then.

— I. Garrick Mason

Editor's note: I published a slightly longer version of this profile in 2009 on the blog sans everything *(sanseverything.wordpress.com), and since it conveys my enthusiasm for Marguerita's art in words I can only marginally improve upon in 2011, we have adapted it for* SCOPE.

Visit Marguerita's website: http://thepoignantfrog.blogspot.com/

Jason Thielke, "Muse", 17" x 23", 2009

My faceless friends

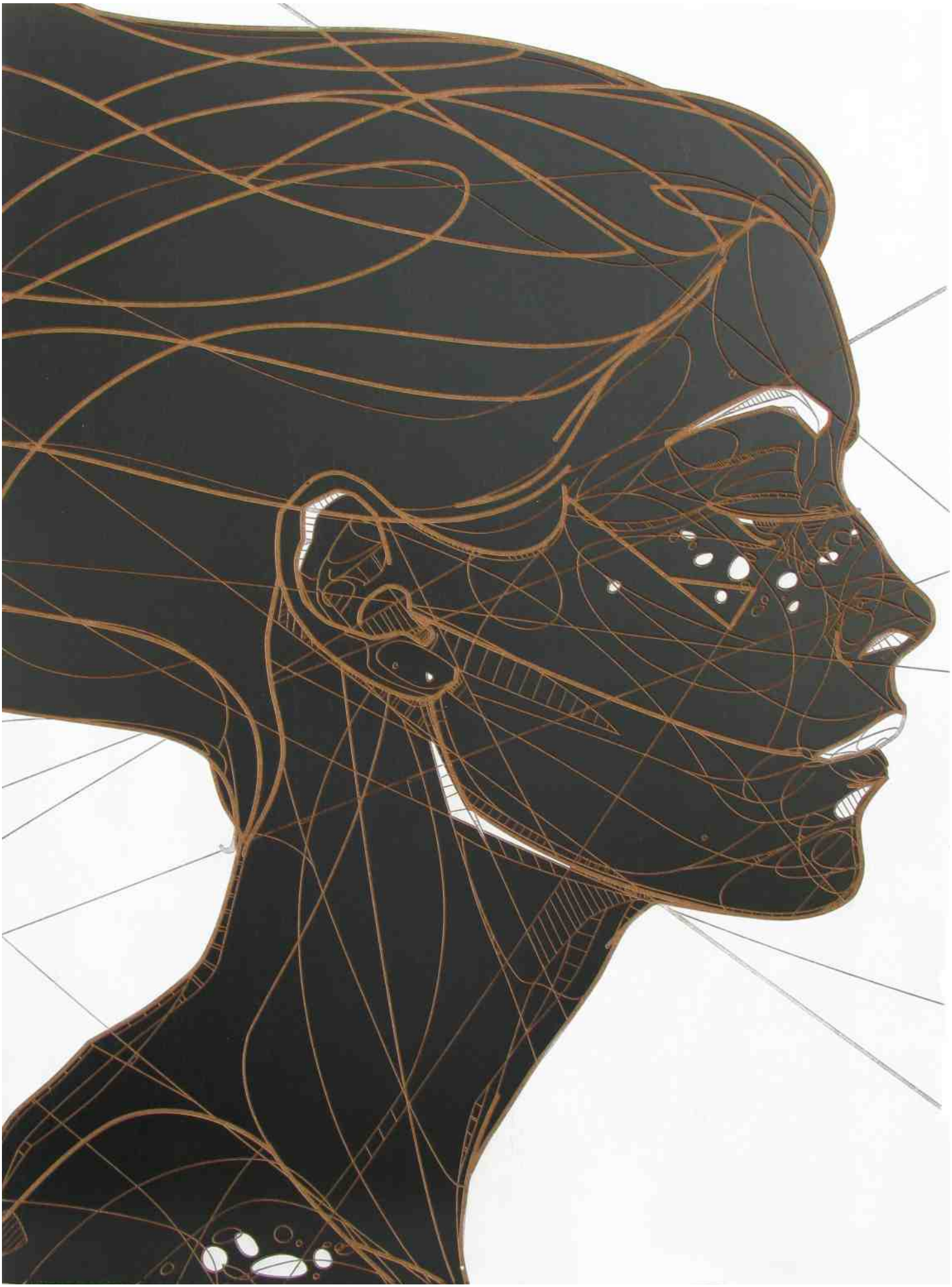
"Social robotics" is heading in the wrong direction by making machines that look like us

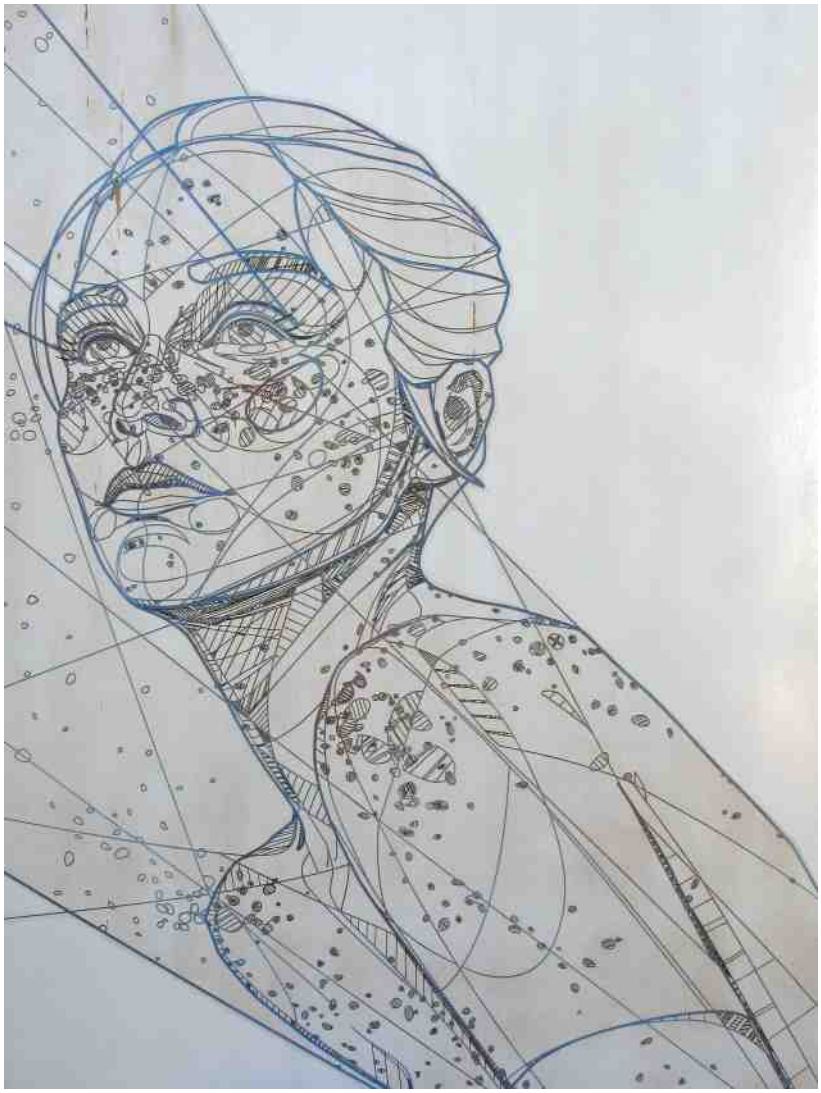
BY NICHOLAS STEDMAN

ART BY JASON THIELKE

This article is about robots that I've worked on. Before I describe them to you, however, I want to start with an admission: I don't own a cell phone. A mobile is almost as basic as pants these days, but frankly, I hate being accessible. As it is, I dread the ring of a land line. It's not that I dislike people, but that I find interacting with them draining. I've never felt totally comfortable in social situations. Parties are particularly anxiety-inducing; my solution has been to stop going to them. By contrast, I'm a very good loner: I can work by myself in my apartment for weeks at a time, and feel pretty good about it. I concentrate my energy in my career, and in the few relationships I value. It's not the most exciting life, but it works for me.

Yet almost weekly I hear of another new social media app that is changing the way people communicate. Facebook, Twitter, Flickr, Tumblr, Masher, Crush3r, 4chan,





Jason Thielke, "Dreamer", 23" x 30", 2009

Plurk, Digg, Diigo, Bebo, Skype, Facetime, Crowdstorm, Doof. I have no doubts about their benefits, enabling users to know more about each other and about events that matter to them, and helping them organize for whatever cause tickles their fancy. Social media harnesses the amplifying force of crowds to carry individual participants rapidly upstream towards personal empowerment. Yet why is it that when these applications come up in conversation, a subtle mania often sets in? Networks exert a kind of inhumane control on us. They seek constant attention, repeatedly tugging us out of our physical engagement with the world. The machines buzz, and our bleary eyes swing once again to the 4-inch screens.

To clarify, I am not anti-technology. Quite the opposite: I am enthralled with the creative opportunities it affords. I work with many of the same hardware components and software as some of the social media set, including wireless technologies, microprocessors, programming and so forth. But I use these to build devices that explore different ways people can relate to the world. It is an art practice of sorts, though one largely unfamiliar to gallery-goers. Some call it "device art", others "physical computing", and to many it is simply "making". It is a burgeoning area in which non-engineers like myself can learn to work with lower level technologies through DIY (do it yourself) principles. Fundamentally, it is not so different than the hobbyism of yore, but there are new twists. First and foremost, information abounds on the Internet. The non-expert has access to a vast array of documents, tutorials, and forums to aid their design efforts. Secondly, electronics have become increasingly modular: without too much effort devices can be hacked and remixed. A GPS system can be combined with a motorized-propeller and stitched into an inflatable garment—not that you'd actually want to do that. The bar to invention has been lowered, and new blood brings with it ideas and interest from different fields.

Specifically, I design what are called "social" robots. Despite the irony in the name, it is a good fit. Machines that fall into this category are intended to serve people who have limited social interactions. The elderly and children with social-affective disorders are two commonly cited audiences, but really anyone who is unsociable like me might be a candidate. The social robot category has a few permutations, including robots that assist with multiple household tasks ("butlers"), and those that entertain and provide companionship ("friends"). I am more interested in the second of these. I see robots as being able to provide unobtrusive comfort—the antithesis of social media. I imagine stretching out with a robot in my arms at the end of a long day, and being

soothed by it with no demands or expectations, not unlike a pet. Yet while this prospect is intriguing, it is not what drives me. Pets already exist after all. The reason I do the work is for the challenge of making something that seems alive. This is a strong human impulse that has been expressed throughout the ages, from the tales of ancient mythology to the life-simulating computer game The Sims, and in physical efforts that date back at least to the mechanical automata of the thirteenth century. Today, a quick YouTube search will reveal robots that are capable of acting with impressive agency, and with new funding from DARPA (the U.S. agency that famously gave birth to the Internet), I'd only expect to see a surge in such developments. But at what stage will we be able to say that these machines are in some sense alive? To my mind, the answer is found in the words of the late U.S. Supreme Court Justice Potter Stewart: "I know it when I see it". And so I choose to work on social robotics because it offers a chance to engage with and to get a feel for a robot in such a way that we can assess that proposition of artificial life for ourselves.

One tendency in social robotics is really vexing, however. The machines are almost always designed as imitations of people or other animals, and endowed with features like lips, ears, and tails. Likewise, the machines are programmed to convey fear, happiness, boredom, and other emotions in response to stimulus and history. These features are used to guide participants through their interactions. Cynthia Breazeal, the MIT professor and founder of this movement, argues that bio-mimicry affords a "natural and intuitive understanding of [a robot's] emotional behavior and how to influence it." This seems reasonable enough. If you want to command a robot, natural language would be an easy way to do so, and a robot's "face" would offer a focal point for your attention.

This principle has encouraged a whole stream of social robotics that focuses on outward appearance. Hiroshi Ishiguro at Osaka University uses silicone skin to cover electromechanical parts, resulting in surprisingly attractive humanoids. Yet when they interact with people the robots seem trapped in their own hermetic universes, barely aware of our presence. The result is eerie, not unlike going to a wax figure museum. If you know the feeling then you have experienced the "Uncanny Valley": we can feel comfortable with, and even have affection for, robots that look mechanical and unlike people, but we feel revulsion when robots become too lifelike. It has long been theorized that if robots could be made just a little more realistic then we would arrive at the other side of the valley, and accept them as social agents. I doubt this.

Human-like features mask a fundamental disconnect. A robot in fact doesn't have a face, nor does it experience happiness, at least not the way we do. Our features have evolved over millions of years in parallel with our fleshy bodies, and the planet as a whole. Our appearances are derived both from nuanced relationships between organs, and from functions that extend beyond simple communication. So when silicone lips are glued onto an electromechanical system, there is a huge gap between the equipment the robot has at its disposal, and the "features" it purports to have. The Uncanny Valley, then, is our apprehension of the contradiction. It is a real problem, one that designers need to come to terms with. Breazeal's own PhD advisor, Rodney Brooks, once warned that building humanoid robots, though generally desirable, carries a "danger of engaging in cargo-cult science, where only the broad outline form is mimicked, but none of the internal essentials are there at all."

We're comfortable with robots that look mechanical, but feel revulsion when they become too lifelike

Indeed, it seems that some researchers have fallen into the trappings of pseudo-science. Studies I've looked at fail to appraise how robots affect human subjects. There is an assumption that since the robots look like people that we accept them in the same way, which is debatable. Here is the entire list of criteria offered in an evaluation of Paro, one of the more renowned social robots, and a fuzzy white seal to boot: 1) Cute, 2) Want to pet it, 3) Want to talk to it, 4) Has vitality, 5) Easy to get friendly with, 6) Has real expressions, 7) Natural, 8) Feels good to the touch, 9) Fun to play with, 10) Comfortable to play with, 11) Relaxing, 12) Like, 13) Needed in this world, 14) Want it for myself, 15) Would give as present. Every single one of these categories contextualizes Paro as a friendly companion, and begs respondents to recount their enjoyment. It is the epitome of experimenter bias. What is learned here about Paro's effectiveness as a robot? They might as well be asking about a stuffed animal. Maybe it all works, but it seems rather silly, and if the current lack of social robots tucking us in at night is any sign, then it appears that something in the discipline is off track.

What's needed is good dose of aesthetic critique. After all, these robots are artifacts that are intended to function primarily by operating on our human sensitivities to evoke emotional responses. Is this not one of the definitions of a work of art? We can be more specific. Over the past century art has been generally considered to fall into one of two categories. There is the representational approach, in which artists depict people, landscapes, and other recognizable objects. Though "realistic", the depictions are also illusory in that the paint on the canvas is obviously not the same thing as the person it represents. Spectators willingly suspend their disbelief, allowing their imaginations to run with the scene. We do something similar when we accept the actor Robert Downey Jr. as a superhero in a summer blockbuster for a couple of hours. By contrast, non-representational artists explore the material properties of a medium to see what kind of aesthetics are possible. They look at how line, shape, color and movement can be rendered, and how these renderings affect the viewer. This is the approach famously associated with abstract expressionist icons like Jackson Pollock and Mark Rothko, but the approach is equally applicable to instrumental music. Many artists are at ease with these two traditions, often borrowing from each to depict figures with individualistic style.

The principles of representational art are at play within the field of social robotics, although no one talks about them explicitly. When we encounter a robot built to mimic people, we suspend our disbelief and pretend that the machine is alive, as we would with any toy. But researchers are too ready to point to this emotional engagement as though it is induced by the robot's engineered behavior, and not in fact by our own imagination. Engineers are creating illusions but claiming reality, a stance as absurd as a filmmaker asserting that we root for Robert Downey Jr. because he actually is a superhero. In this context, the Uncanny Valley is not a valley at all, but a sloping cliff. We sense the gap between the robot's appearance and the underlying reality, and it makes us as uncomfortable as any fib. We accept mechanical-looking robots because their appearance makes sense, because robots are machine. We may also "accept" illusionistic robots, but we do so with a grain of salt.

Machines that are like us are easy to imagine, but extremely difficult to make. The task involves reproducing the mechanisms that make us human, including our morphology, our senses, our memory, our language, and our emotions. Cracking the stock market is probably an easier task. Progress is happening, but authentic human-like behavior is still a good distace away. There is much work to be done in order to build the necessary capacities.

My own designs are probably best introduced by way of a story. As I said before I'm okay with being on my own, but I'm not a lonely guy. I know, because at one point I was. I felt uncomfortable, so I isolated myself. It was a downward spiral: the more I avoided people, the more awkward I felt in social situations, and the more I wanted to get away. It got extremely intense at times. I couldn't make eye contact. I feigned contentment when really I felt constantly and intensely depressed.

During this period I began working on my first robot, in an effort called the Blanket Project. When I originally proposed it I imagined making social-enabling devices: a pair of robotic blankets each filled with a grid of many motors and sensors. They would be networked to convey touch across distance, physically connecting two remote people. One person would move and the other would feel it. The idea still has potential, but it's not the one I ended up pursuing. Instead, after starting the project I quickly became fascinated with basic lifelike motions. The first time the blanket animated was in a fitful dance of random movements. As I worked on it, I felt like I was training a wild animal, very laboriously. I soon lost interest in connecting to other people. My life was defined by my relationship with this device. I began to think of it as a repository of my thoughts and feelings, and believed that anyone who experienced the device would experience me.

Things got weird at times. At one stage, I was trying to get the blanket to crawl around, so I needed a large surface. I purchased a second-hand bed and pushed it up against my own. The floor of my bedroom vanished; the new floor was a mattress starting at knee-height at the doorway and stretching out to all the walls. During the day the robot would wiggle to and fro across the surface. At night there was no need to relocate it, so I would rest my head next to the machine, sleeping side by side. It was a strange period, but if I ever I was a true artist it was then.

It turned out that the Blanket was too challenging a goal for me at the time, and the best I could do was to make it move by remote-control. But the project helped clarify my interests and ideas. For one, I learned that people will project life onto just about anything that moves or has behaviour. That means there is no special need to dress things up. Secondly, the more joints a robot has, the more organic its movements appear. This is a simple matter of resolution, like the number of pixels it takes to make a face on a screen look genuine. Thirdly, feelings can be induced in humans through tactile interaction instead of through representation. Vigorous motions excite participants, while gentle movements are generally relaxing. Touch also works as well for the machines as it does for people, so

Jason Thielke, "Compartments", 23" x 30", 2009

it is good means of communication. Finally, I realized that when designers are freed from the constraints of mimesis they can explore an array of different robotic shapes and movements to learn what kind of effects they have on us. This I believe is the low-level aesthetic work that needs to be done in order to understand how people and machines can relate.

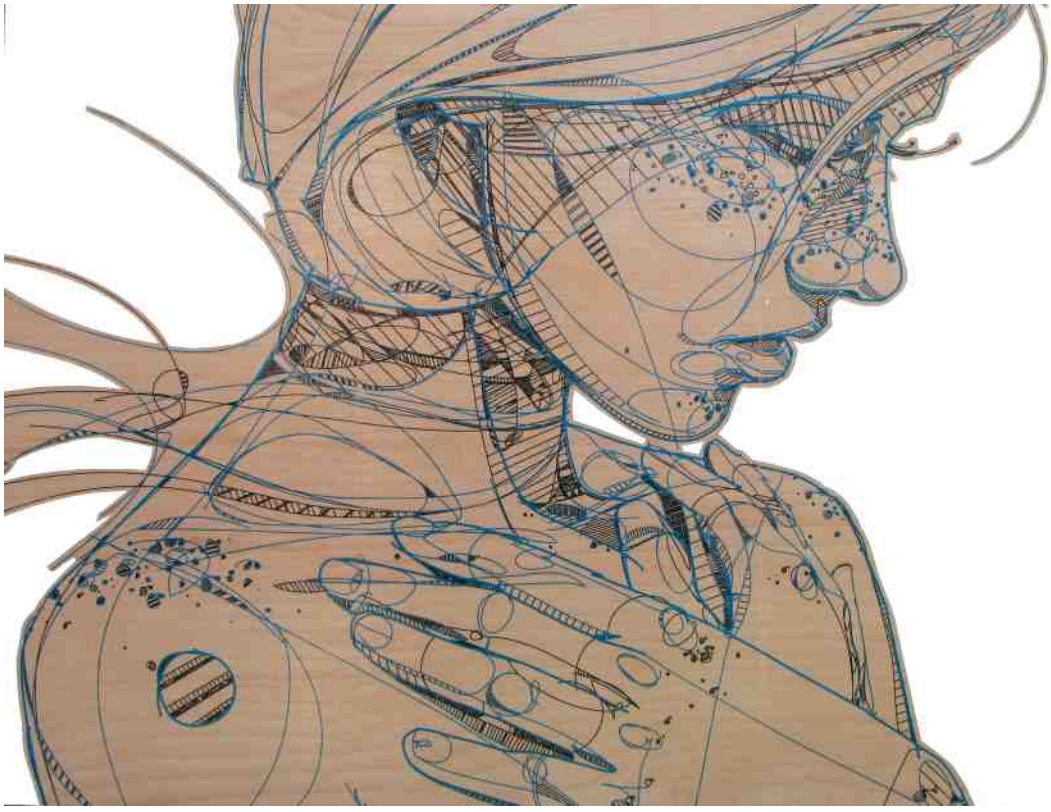
I followed up on the Blanket with a number of other projects. The Tribot was a three legged robot, also remote-controlled. The most interesting thing about it was its audience: it was specially made for dogs. I wanted to test my concepts out on creatures that didn't have a past history with robots. Five dogs were brought, one at a time, into a room containing me and the Tribot. I turned the machine on and watched as the interactions unfolded. In most cases, the dogs followed a recognizable pattern. At first, they were suspicious and kept their distance from the machine. Then they approached hesitantly, and started sniffing it. Then they typically got more aggressive: barking, nipping, and eventually chewing on the machine. Then they became bored—I think because the machine was not responsive enough to them.

The Tribot was sufficiently effective that I decided to jump into my current, bigger project: a fully autonomous companion robot for people. After Deep Blue, or ADB for short, is a robot designed for direct physical interactions with people. Vaguely snake-like in form, it is composed of a series of identical modules, each containing a motor and various touch sensors. It is about the size of a small person's thigh, and fits nicely in one's arms. ADB writhes, wriggles, twists, and squeezes in response to how it is held and touched. It adapts to you, and reciprocates the energy you put into it though your body. When touched, it comes to life. When stroked, it seeks more contact. And soon, when it is harmed, it will defend itself or try to get away.

ADB is a work in progress, three years in the making with probably two more to go. It hasn't been easy nor smooth, which is one of the disadvantages of not being an engineer. I have shown it publicly only a few times, and only for a few days each time. Yet I am already familiar with most people's reactions to it, which closely parallel how the dogs responded to the Tribot: with suspicion, probing, full engagement, and eventual abandonement. With this project I am more interested in the few people who stick around and come back again and again, the ones who simply like the way ADB feels, the way it animates. They sit down and caress it for long periods, sometimes forgetting it's there. It becomes like second nature to them.

That's the kind of relationship I hope to augment, one in which a person accepts a robot as its own unique entity and yet is willing to engage it emotionally. Some people just feel at ease with machines, perhaps more so than with other people. A really useful kind of social robot is therefore one which is able to service emotional needs precisely because it is different from us, providing sensation without expectation, being more like hands than eyes. Hands make contact, after all, whereas eyes seek and judge. Hands close the gap, whereas eyes always remain at a distance. We experience too many eyes already. It's rare that we just let go.

Nicholas Stedman is a Toronto-based artist who makes electronic devices with unusual applications. These have ranged from tactile robots to a machine for feeling ice from a distance to a chalice that automates transubstantiation of wine. The devices are enacted in galleries, festivals or other public forums where people can try them out, or watch as others explore. Nicholas's projects have been shown in Canada and abroad, some highlights of which include Ars Electronica, SIGGRAPH, and a Japanese game show. Nicholas also teaches Digital Media at Canada's York University, and keeps a blog at http://nickstedman.wordpress.com



Jason Thielke, "Grace", 23" x 17", 2008

One question with Jason Thielke

SCOPE: *You've a remarkably "architectural" approach to drawing human and animal forms. How did that develop?*

Thielke: Several years ago my friend and I were working as graphic designers. We decided to encourage each other to paint and to show some of our work wherever we could. I was painting urban landscapes and figures. My landscapes began to develop and I soon started overlaying line work on top of paint. Soon the line took over and I was concentrating on urban landscapes drawn with only black line and without thickness variation. These two parameters were the foundation to my style, along with a randomness of line placement when rendering. After every ten landscapes or so, I would take a break and try a figure. Landscapes were selling and figurative work had limited success, so development was slow. But a real link between my built environments and figures had developed. I broke down the figures into geometric shapes and rebuilt them with line. I wasn't thinking too hard about it. I was just thinking that it seemed urban—because that was how I drew urban scenes. Anyway, collectors started to notice the figures more and I was enjoying the work. Soon my focus changed and I was able to concentrate on the figure.

About the artist

Jason Thielke studied at the Northern Illinois University School of Art and has held solo exhibitions in Denver, Portland, and Seattle. Visit his website: http://www.jasonthielke.com

Berenice Abbott, "John Watts Statue from Trinity Courtyard, Broadway and Wall Street", 1938

"The least arty photographer"

Rarely is a photograph simply what it claims to be —and neither was photographer Berenice Abbott

BY TERRI WEISSMAN

An extract from *The Realisms of Berenice Abbott* (University of California Press, January 2011)

"If you knew anything about photography, you'd know I was the least arty photographer [in America]," Berenice Abbott stated in 1991 during an interview for a film about her life and career. This moment from the interview didn't make the film's final cut, and in fact Abbott herself never saw the movie in its final form, having, sadly, passed away shortly before its release. The statement reveals much about Abbott's personality, though—about her attitude toward "art" and her approach to photography. It also ultimately gets to the heart of her understanding of photographic realism, which, simply put, might be stated: Abbott believed that photography should provide the general public with realistic images of a changing world, images designed to foster the kind of historical knowledge indispensable to democratic citizenship.

Simply put, maybe, but the story of

Berenice Abbott, "'El,' Second and Third Avenue Lines", 1936

Abbott's realism is not that clear-cut. Her insistence on a "straight" approach to the photographic image, one that minimizes individual expression, has, for instance, come to overshadow most other aspects of her photographic theory and led historians to position her primarily as a proponent of what is now considered a naive understanding of photography's ability to capture an objective world. The instinct or desire to characterize Abbott's approach as purely about objectivity, clarity, and straightforwardness is understandable, though. Indeed, her own rhetoric, her repeated assertion of the photograph's ability to represent the facts of life with a kind of fidelity lacking in all other media, sensibly leads one to this conclusion, as does her oft-cited quotation in which she recalls seeing Eugène Atget's photographs for the first time: "Their impact was immediate and tremendous," she writes; "there was a sudden flash of recognition—the shock of realism unadorned." As mentioned in the introduction, Abbott's emphasis on Atget's realism set her interest in him apart from that of figures such as Man Ray and the surrealists. Where the surrealists were attracted to Atget's work for its weird sense of emptiness and ability to redouble the world as a sign, Abbott was drawn to what she perceived as its pure realist essence.

Abbott continued to embrace this type of realist vision in her well-known and influential how-to book on photographic processes, *A Guide to Better Photography*, which at times reads like an exegesis on the advantages and ultimate *correctness* of a realist, or straight, approach to the medium. Consider chapter 10's opening words: "Photography is a new vision of life, a profoundly realistic and objective view of the external world. . . . What the human eye observes casually and incuriously, the eye of the camera (the lens) notes with relentless fidelity." In chapter 15 she declares, "Photography, by its very realistic and factual nature, permits the artist to lie less than many other mediums. To be sure, the photographic processes may be manipulated in ways that seem to deny photography's realistic character. But these diversions do not continue to hold attention."

And in chapter 24, which is dedicated to straight photography, she claims: "We can see that straight photography today exercises a corrective influence in two directions, against the kind . . . of picture-making extolled by the pictorialists . . . and against the frivolousness of those who manipulate the medium purely for selfish ends, as in the surrealist nightmares. . . . Contrasted with the horrors of sentimentality [pictorialism] and of pseudo-sophistication [surrealism], straight photography is a clean breath of good, fresh air. It . . . calls for the use of the medium without perversion of its true character."

And when Abbott actually defined straight photography, she emphasized the medium's inherent characteristics. Straight photography, she wrote, is "precision in the rendering and definition of detail and materials, surfaces and textures; instantaneity of observation; acute and faithful presentation of what has actually existed in the external world at a particular time and place." In other words, the straight, objective, or realist photograph is the image revealed without trickery, deceit, or distortion, all in the name of a truthful and faithful presentation of fact.

Berenice Abbott, "Bread Store, 259 Bleecker Street", 1937

One way that Abbott justified her privileging of straight photography over other methods was to turn to the medium's communicative potential. "The something done by photography is communication," she declared. "It was fashionable a dozen years ago to sneer at communication as the purpose of art and, indeed, even deny that art had a purpose. Non-intelligibility, non-communication were raised to ultimate ends. To say anything in a book, a picture, a piece of music, was anathema. The artist who did so was a prig and a prude and distinctly passé. That phase is past." In an even stronger pronouncement of photography's potential to function as a kind of ultimate utopian ideal of communication—unbounded, free, and clear—Abbott wrote, "The potentiality of the camera for communication of content is almost

Berenice Abbott, "'El' Station Interior, Sixth and Ninth Avenue Lines, Downtown Side", 1936

unlimited. The photograph, full of detail and objective, visual fact, speaks to all people. Where language barriers impeded the flow of the spoken or written idea, the photograph is not handicapped; the eye knows no nation." These kinds of quotations abound in Abbott's writing, and I could easily continue with more, but the idea is clear enough: it is only the straight photographic image, through the realistic and objective revelation of its subject matter (or content), that speaks to spectators, both current and future.

Now we can begin to postulate that what makes Abbott "the least arty photographer" in America is her belief that the photographic image should be both straight and oriented to communication—and this would be a good beginning. But a third element also needs to be added to the equation. Based on Abbott's often grand statements in which she tied the photographic print's realist essence, objective qualities, and communicative potential to the most pressing historical and social issues of the day, a social and political commitment of some sort should also be considered a crucial component of Abbott's claim of being the least arty photographer. In a 1951 article, a text that came to function as Abbott's personal manifesto about photography's history and future, she stated:

> Today the challenge to photographers is great because we are living in a momentous period. History is pushing us to the brink of a realistic age as never before. I believe there is no more creative medium than photography to

> recreate the living world of our time.
>
> Photography accepts the challenge because it is at home and in its element: namely, realism—real life—the now.
>
> What we need is a return . . . to the great tradition of realism. Since ultimately the photograph is a statement, a document of the now, a greater responsibility is put on us [photographers]. Today we are confronted with reality on the vastest scale mankind has known.

So photography is objective, useful as a tool for communication, and socially and historically oriented. Given this framing of the medium, Abbott's self-identification as "the least arty photographer" in the United States is easy to understand. And for the historian faced with these sorts of declarations, the positioning of Abbott as a photographer preoccupied with demonstrating and asserting the medium's potential for objective representation—the proponent, that is, of a straightforward understanding of photography's ability to capture an objective world—is also easy to understand.

Berenice Abbott, "Father Duffy, Times Square", 1937

And yet. Despite the evidence, I believe it would be a mistake to interpret Abbott's statements as a simple endorsement of objective photography and an outright rejection of all else. The complexity of Abbott's attitude toward the photographic image comes out in her pictures, but her understanding of photography's capacity to function beyond a narrowly conceived idea of representation is also evident in her writing. If we are willing, for a moment, to suspend our judgment about Abbott's sometimes facile account of what constitutes the real with regard to photographic imagery and take a second, closer look at her texts, a more complex analysis emerges. For example, in a speech delivered at the Aspen Institute, on which the preceding extract is based, Abbott explicitly connected photography to democracy and populism, identified photography as the "great democratic medium," and proclaimed, "Photography is made by the many and for

Berenice Abbott, "Construction Old and New", 1936

the many." This is an interesting claim (and not a simple one) for an artistic medium: a medium that, like the American Constitution, is by the people, for the people. It implies a belief that the users (and viewers) of photography would emerge as a new community, as a people who, not bound by past rules of making or spectatorship, would establish new conditions for making historical subject matter visible and, in so doing, would expose new possibilities for action.

Or similarly, returning to the longer excerpt I quoted from her 1951 text, "Photography at the Crossroads," Abbott wrote, "History is pushing us to the brink of a realistic age as never before. I believe there is no more creative medium than photography to recreate the living world of our time." This could be read as a frank statement about the effect of objective representation on people's actions: visually confronted by realistic images of momentous historical events (war, hunger—suffering in general), people will be motivated to act or work toward change. But the same statement could be interpreted with more subtlety: might it not also indicate an interest in studying the present (the "now") as a historical problem? And reveal a desire to recast history as a dilemma of representation? History itself seen through the prism of realism, *as* a problem of realism?

"When Brady made his thousands of negatives of the Civil War, he was photographing the realest thing that happened in his time," Abbott wrote in her *Guide to Better Photography*. And one of the book's many illustrations is Brady's 1861–1865 image *Bridge built by troops on the Orange & Alexandria RailRoad*, (sometimes known as *Trestle Bridge*), which depicts a United States military railroad engine crossing a river on a trestle bridge built over the remains of an older stone bridge. The train, either stopped or moving very slowly, is surrounded by a number of soldiers; a larger figure dominates the foreground space—he looks up at the

bridge and the engine crossing it. Because the figure was unable to hold his pose during the camera's long exposure time, the image of his body is blurred, and so it is difficult to tell exactly where he looking or to determine precisely his role in the scene. What is clear, however—and what I imagine Abbott so appreciated about this image—is that multiple historical moments interact: the trestle bridge's new industrial form, employed for the first time and with some frequency during the American Civil War, is shown next to (as a replacement for) an older tradition of stone masonry. These two technologies function as multiple historical voices speaking out from the photographic print, from two distinct pasts. They speak to the viewer, who, situated in the present day, contributes yet another voice to the scene. Abbott identified the Civil War as "the realest thing that happened in [Brady's] time," and with *Trestle Bridge*, we can see how that event created the historical circumstances that encouraged various voices (past, present, and future) to interact. Brady's ability to capture this interaction on the surface of the photograph makes the invisible visible: everyday life as it is experienced through time, not just in one single moment.

Berenice Abbott, "Flatiron Building", 1938

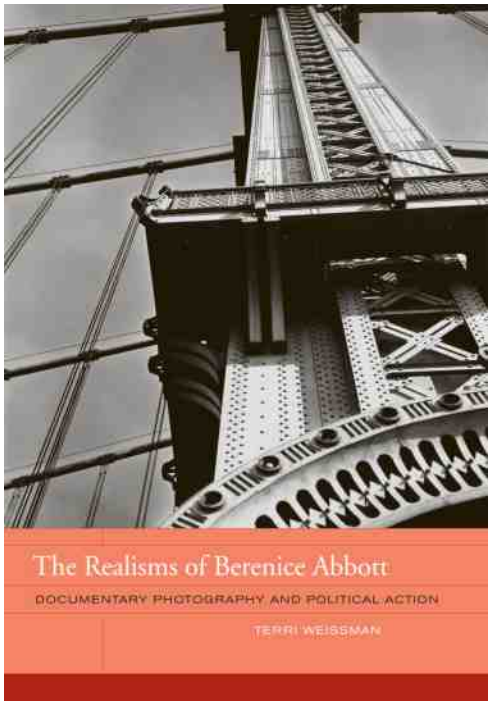
Such an interpretation of Abbott's words changes the terms of the debate over her view of photography and realism. It moves the discussion away from the idea of objective representation and toward one that takes into account contingency and the not-pictured—something which the camera's lens does not see and therefore cannot reproduce, literally, but which is there. Alongside her declarations about photography's realist essence and idealized communicative potential, Abbott explored this idea as well:

> The camera's eye is [not] easily imposed on. It demands logical and reasonable reality in what it records. It creates a marvelous record of fact, of truth, an almost microscopic chronicle of things, but according to its own character, a character mercilessly controlled by optics. What the lens sees is

> a single image at the instant the shutter is clicked. Unlike the human eye, the lens does not merge or superimpose images from what it saw a moment before or what it may see a moment after. It does not color the image it records with remembered images of other times and places. Nor does it include in its sharp, restricted, instantaneous view what is seen vaguely and indistinctly from the corner of the human eye. The lens freezes time and space in what may be an optical slavery or, contrarily, the crystallization of meaning. The limits of the lens' vision are esthetically often a virtue. However the limits create problems.

The problems caused by the lens's ability to freeze time and space is the problem of the solitary image conceived as a finality. To Abbott, such an image, a solitary image, cannot reveal the real, because too much has been left out. Attached to it, there must always be another image or another voice (the trestle bridge and the stone masonry).

To limit, then, Abbott's position on the straight, realist, or objective photograph to an idea purely about graphic inscription would be to fail to recognize that her pictures do not simply assert a closed and finished content that some unknown spectator, then and now, must accept without question. Her approach was neither this narrowly conceived nor solely related to depicted subject matter. Such limited understanding of the photographic medium—straight, unmanipulated evidence of what "was there"—reveals a worldview that seeks the conquest of the world as a picture, a view that has no real connection to Abbott's work (or theoretical writing). Yet her approach has sometimes been conflated with this perspective. This type of analysis fails to see that Abbott's idea of realism ultimately depends not on a utopian conception of universal communication (this, despite Abbott's own occasionally utopian rhetoric) but on the construction of a *space* of communicative interaction. A space—between the photographic print, the photographer, and the spectator—of engagement that is open-ended and that reveals the social contexts out of which photographs come into sight in the first place.



Terri Weissman is Assistant Professor of Art History at the University of Illinois, Urbana-Champaign, specializing in modern and contemporary art and the history of photography. Her book, *The Realisms of Berenice Abbott: Documentary Photography and Political Action* (University of California Press, 2011), examines the politics as well as the successes and failures of Abbott's realist, communicatively oriented model of documentary photography. She has co-curated (with Jessica May and Sharon Corwin) a major traveling exhibition titled American Modern: Abbott, Evans, and Bourke-White (catalog available from University of California Press) that further investigates questions of documentary photography's efficacy and political resonance. Weissman has also published on contemporary artists such as Gabriel Orozco and Maria Magdalena Compos Pons, as well as on the cultural impact of disasters such as September 11th.

Visit her website at http://art.illinois.edu/people/tweissma/
American Modern opens at the Art Institute of Chicago on February 5.

Berenice Abbott, "DePeyster Statue", 1936

Austerity

From social virtue to economic punishment

BY JEET HEER

Greece, 7th century BCE. The lawgiver Zaleucus develops the Locrian code. Women are forbidden from wearing gold jewels or embroidered robes, men from wearing gold rings or effeminate robes.

Roman Republic, 3rd century BCE. The idea of equal citizenship is enforced by "sumptuary" laws forbidding excessive displays of dress or lavish banquets. Censors chastise violators.

Circa 60 CE. St. Paul advises women "to dress modestly, with decency and propriety, not with braided hair or gold or pearls or expensive clothes." (I Timothy 2:9).

1497, Florence. Dominican monk Girolamo Savonarola organizes the *Falò delle vanità* (the Bonfire of the Vanities), burning useless items like mirrors, paintings, playing cards and musical instruments.

Circa 1534, Paris. Protestant theologian John Calvin criticizes luxury. Followers prove their virtue by working hard and deferring gratification. In the process they grow rich.

1760s-1770s. Thinkers like Benjamin Franklin recover the ideal of thrift as a "republican virtue." Foregoing tea and other British goods, Americans hope to prove they are ready for self-governance.

1914-1918. In World War I rationing is encouraged as a patriotic duty. "Now is the time to lay your double chin on the altar of liberty," declares Herbert Hoover, head of the U.S. Food Administration.

Great Depression. 1929-1938. Governments initially respond with classical economic programs of belt tightening, cut backs and higher taxes to reduce deficits. Results are disappointing.

1976. Daniel Bell argues that the long Protestant revolution is now confronted by an irresolvable "cultural contradiction": the wealth generated by capitalism is undermining the capitalist work ethic.

2008-2009. Reacting to the financial crisis, Western governments avoid the paradox of thrift, and use massive fiscal and monetary stimulus programs to ward off global depression. Results are heartening.

2009-2010. Sovereign debt leads to severe belt-tightening in Greece, UK, Ireland, others. "The age of irresponsibility is giving way to the age of austerity," declares David Cameron, UK prime minister

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Jeet Heer is a cultural reporter who lives in Toronto and Regina. His most recent work can be found on the blog sans everything *(http://sanseverything.wordpress.com/).*

Welcome to the end of the magazine.

We hope you enjoyed reading it, and we hope you'll be back to read Issue #2. But to make that issue even better, *we'll need your thoughts on this one.*

Give *SCOPE* a piece of your mind.

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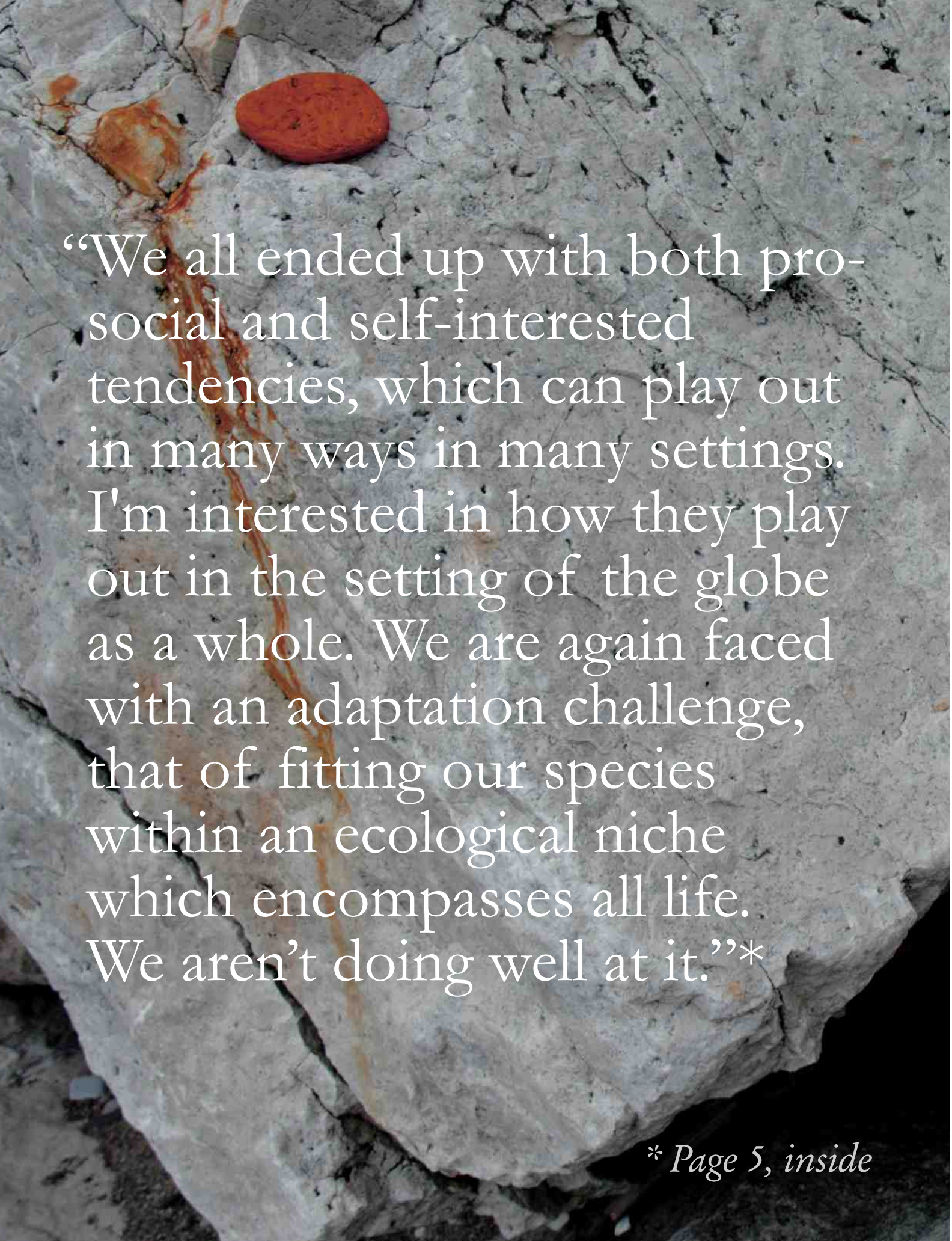

"We all ended up with both pro-social and self-interested tendencies, which can play out in many ways in many settings. I'm interested in how they play out in the setting of the globe as a whole. We are again faced with an adaptation challenge, that of fitting our species within an ecological niche which encompasses all life. We aren't doing well at it."*

* *Page 5, inside*