⅃.
DEⰒIGN AⰔ CRITIQUE

To be human is to refuse to accept the given as given.[1]

Once we accept that conceptual design is more than a style option, corporate propaganda, or designer self-promotion, what uses can it take on? There are many possibilities—socially engaged design for raising awareness; satire and critique; inspiration, reflection, highbrow entertainment; aesthetic explorations; speculation about possible futures; and as a catalyst for change.

For us, one of the most interesting uses for conceptual design is as a form of critique. Maybe it is because of our background in design but we feel that the privileged space of conceptual design should serve a purpose. It is not enough that it simply exists and can be used to experiment or entertain; we also want it to be useful, to have a sort of social usefulness, specifically, to question, critique, and challenge the way technologies enter our lives and the limitations they place on people through their narrow definition of what it means to be human, or as Andrew Feenberg writes, "The most important question to ask about modern societies is therefore what understanding of human life is embodied in the prevailing technical arrangements."[2]

CRITICAL DESIGN

We coined the term *critical design* in the mid-nineties when we were researchers in the Computer Related Design Research Studio at the Royal College of Art. It grew out of our concerns with the uncritical drive behind technological progress, when technology is always assumed to be good and capable of solving any problem. Our definition then was that "critical design uses speculative design proposals to challenge narrow assumptions, preconceptions, and givens about the role products play in everyday life."

It was more of an attitude than anything else, a position rather than a methodology. Its opposite is affirmative design: design that reinforces the status quo.

For many years the term slipped into the background but recently it has resurfaced as a part of growing discourse in design research,[3] exhibitions,[4] and even articles in the mainstream press.[5] This is good but the danger is it becomes a design label rather than an activity, a style rather than an approach.

There are many people using design as a form of critique who have never heard of the term *critical design* and who have their own way of describing what they do. Naming it *critical design* was simply a useful way of making this activity more visible and subject to discussion and debate. And, although it is very exciting to see it taken up by so many people and evolving in new directions,[6] over the years its meaning and potential has changed for us, too, and we feel it is the right moment to offer an updated view of what we think it is.

## CRITIQUE/CRITICAL THINKING/CRITICAL THEORY/CRITICISM

Critique is not necessarily negative; it can also be a gentle refusal, a turning away from what exists, a longing, wishful thinking, a desire, and even a

dream. Critical designs are testimonials to what could be, but at the same time, they offer alternatives that highlight weaknesses within existing normality.

When people encounter the term *critical design* for the first time, they often assume it has something to do with critical theory and the Frankfurt School or just plain criticism. But it is neither. We are more interested in critical thinking, that is, not taking things for granted, being skeptical, and always questioning what is given. All good design is critical. Designers start by identifying shortcomings in the thing they are redesigning and offer a better version. Critical design applies this to larger more complex issues. Critical design is critical thought translated into materiality. It is about thinking through design rather than through words and using the language and structure of design to engage people. It is an expression or manifestation of our skeptical fascination with technology, a way of unpicking the different hopes, fears, promises, delusions, and nightmares of technological development and change, especially how scientific discoveries move from the laboratory into everyday life through the marketplace. The subject can vary. On the most basic level it is about questioning underlying assumptions in design itself, on the next level it is directed at the technology industry and its market-driven limitations, and beyond that, general social theory, politics, and ideology.

Some people take it very literally as negative design, anti-everything, interested only in pointing out shortcomings and limitations, which if already understood and appreciated, we agree is a pointless activity. This is where critical design gets confused with commentary. All good critical design offers an alternative to how things are. It is the gap between reality as we know it and the different idea of reality referred to in the critical design proposal that creates the space for discussion. It depends on dialectical opposition between fiction and reality to have an effect. Critical design uses commentary but it is only one layer of many. Ultimately it is positive and idealistic because we believe that change is possible, that things can be better; it is just that the way of getting there is different; it is an intellectual journey based on challenging and changing values, ideas, and beliefs. In *Do You Want to Replace the Existing Normal?*, a project we did with designer Michael Anastassiades in 2007–2008, we designed a collection of electronic products that intentionally embodied values at odds with those we would expect from products today. The statistical clock searches newsfeeds for fatalities and organizes them by form of transport in a database. The owner sets the channel to *car*, *train*, *plane*, for instance, and once the

device detects an event, it speaks out the numbers in sequence, one, two, three. . . . We imagined a world where there was a desire for products that met existential needs, reminding us of the frailty of life. Although fully functional and technically simple, we knew there was no market for a product like this because people do not want to be reminded of such things. But, that is its point: to confront us with alternative needs and hint at a parallel world of everyday philosophical products. These objects are designed in anticipation of that time. What would have to change for a need like this to emerge?
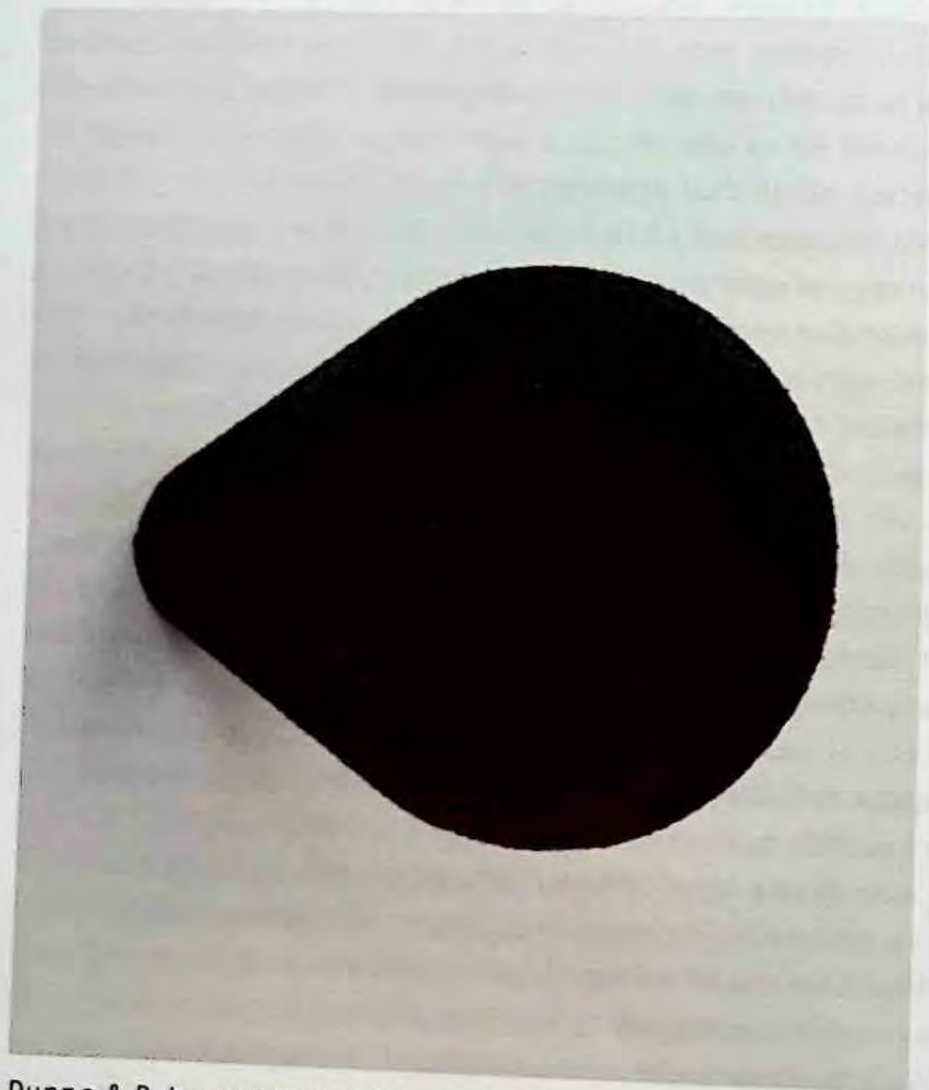
Dunne & Raby and Michael Anastassiades, *The Statistical Clock*, 2007–2008. Photograph by Francis Ware. Photograph courtesy of Francis Ware.

But it is not just about design. In fact, the power of design is often overestimated. Sometimes we can have more effect as citizens than as designers. Protests and boycotts can still be the most effective ways of making a point.[7] We have recently become interested in the idea of critical shopping. It is by buying things that they become real, moving from the virtual space of research and development by way of advertising into our lives. We get the reality we pay for. It is in the shops, waiting to happen, waiting to be consumed. Critical shoppers, by being more discriminating, could prevent certain material realities taking shape and encourage others to flourish. Manufacturers are never sure which reality we will embrace or reject, they simply offer them up and do their best through advertising to influence our choices.

Once workers could exert power by withholding their labor, by striking; today, as we see again and again, this is less so. In today's economy it is as consumers that we have power. The most threatening act of protest for a capitalist system would be for its citizens to refuse to consume. As Erik Olin Wright points out, "If somehow it were to come to pass that large numbers of people in a capitalist society were able to resist the preferences shaped by consumerist culture and opt for 'voluntary simplicity' with lower consumption and much more leisure time, this would precipitate a severe economic crisis, for if demand in the market were to significantly decline, the profits of many capitalist firms would collapse."[8]

As we can see from the current economic crisis: "The state's role in promoting the consumption bias inherent in capitalist economies is particularly sharply revealed in times of economic crisis. In an economic downturn, governments attempt to 'stimulate' the economy by, in various ways, encouraging people to consume more by reducing taxes, by reducing interest rates so borrowing is cheaper or, in some cases, by directly giving people more money to spend."[9]

In a consumer society like ours, it is through buying goods that reality takes shape. The moment money is exchanged, a possible future becomes real. If it did not sell it would be sent back, becoming a rejected reality. In a consumer society, the moment we part with our money is the moment a little bit of reality is created. Not just physical reality or cultural but psychological, ethical, and behavioral. This is one of the purposes of critical design—to help us become more discerning consumers, to encourage people to demand more from industry and society as critical consumers. The designer is not positioned on a higher moral plane, a common criticism of critical theory,

but like everyone else is immersed in the system. Design can help raise awareness of the consequences of our actions as citizen-consumers.

DARK DESIGN: THE POSITIVE USE OF NEGATIVITY

One of critical design's roles is to question the limited range of emotional and psychological experiences offered through designed products. Design is assumed only to make things nice; it is as if all designers have taken an unspoken Hippocratic oath to never make anything ugly or think a negative thought. This limits and prevents designers from fully engaging with and designing for the complexities of human nature, which of course is not always nice.

Critical design can often be dark or deal with dark themes but not just for the sake of it. Dark, complex emotions are usually ignored in design; nearly every other area of culture accepts that people are complicated, contradictory, and even neurotic, but not design. We view people as obedient and predictable users and consumers. Darkness as an antidote to naive techno-utopianism can jolt people into action. In design, darkness creates a frisson that excites and challenges. It is more about the positive use of negativity, not negativity for its own sake but to draw attention to a scary possibility in the form of a cautionary tale. A good example of this is Bernd Hopfengaertner's *Belief Systems* (2009). Hopfengaertner asks what would happen if one of the tech industry's many dreams comes true, if all the research being done by separate companies into making humans machine readable were to combine and move from laboratory to everyday life: combined algorithms and camera systems that can read emotions from faces, gait, and demeanor; neurotechnologies that cannot exactly read minds but can make a good guess at what people are thinking; profiling software that tracks and traces our every click and purchase; and so on. He developed six scenarios that explored different aspects of this rather grim world. In one, a person wants to buy a teapot. She walks up to a machine, pays, then hundreds of images of teapots flash before her on a screen suddenly stopping on one, the one the machine decides the shopper wants from reading micro expressions on her face. In another, a person is trying to identify muscle groups in her face so she can learn to control them and not give her feelings away, voluntarily becoming inhuman in order to protect her humanity. For some this is the ultimate user-centered dream, but for many Hopfengaertner's project is a cautionary tale fast-forwarding to a time when currently diverse technologies are combined to ease our every interaction with technology.
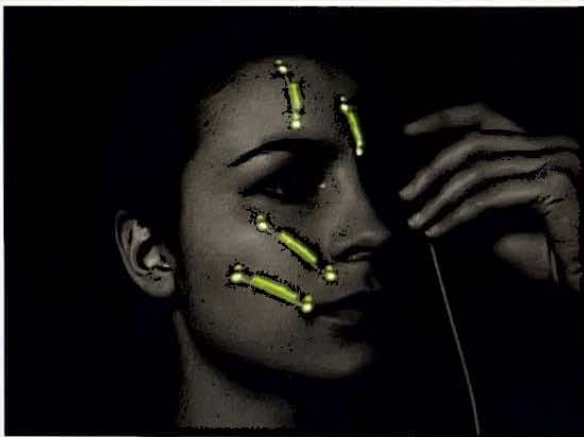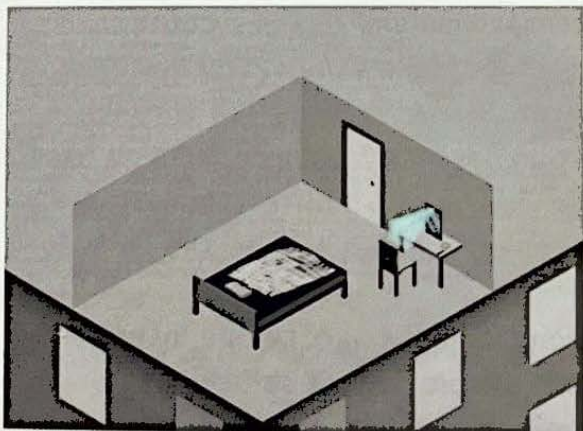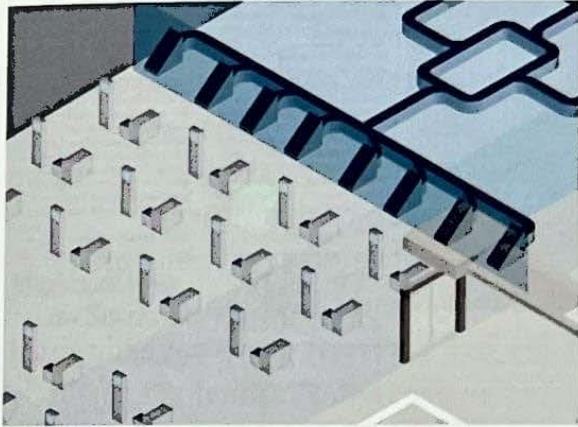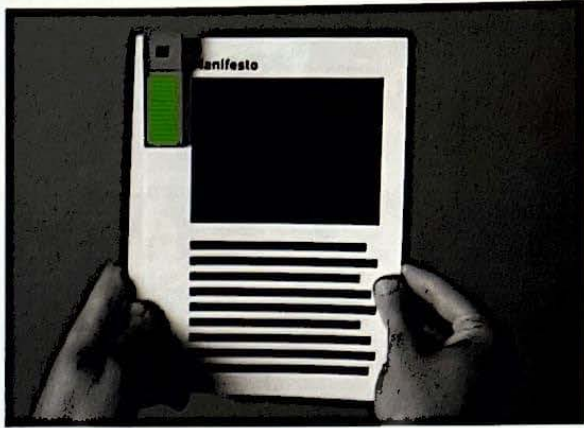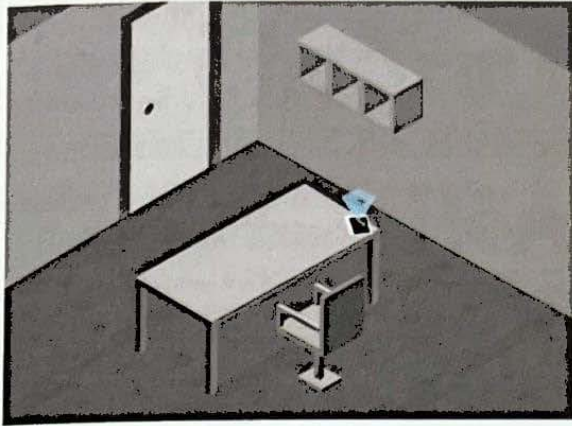
Bernd Hopfengaertner, *Belief Systems*, 2009.

Humor is a very important but often misused element in this kind of design. Satire is the goal but often only parody and pastiche are achieved. These reduce the effectiveness of the design in a number of ways. Borrowing from existing formats, they signal too clearly that it is ironic and so relieve some burden from the viewer. The viewer should experience a dilemma: is it serious or not? Real or not? For a critical design to be successful viewers need to make up their own mind. It would be very easy to preach: a skillful use of satire and irony can engage the audience in a more constructive way by appealing to the imagination as well as engaging the intellect. Deadpan and black humor work best[10] but a certain amount of absurdity is useful, too. It helps resist streamlined thinking and instrumental logic that leads to passive acceptance; it is disruptive and appeals to the imagination.

Good political comedians do this well. Probably the most celebrated artists working in this way are The Yes Men (Jacques Servin and Igor Vamos) who use satire, shock tactics, caricature, hoaxes, fakery, spoofing, absurdity, and "identity correction" (impersonating target organizations and individuals) to raise awareness of the mistreatment of ordinary people by large corporations and governments. Posing as representatives of target organizations they use corporate and governmental tactics such as spin to make outlandish claims or present fictional scenarios that are enthusiastically picked up by the popular media. Although impressive and highly entertaining, for us it is too sensational and fits in a context of media activism, performance, and theater. Their fake *4 July 2009 New York Times* is different, though; it is subtle, beautifully crafted, and through headlines such as "Iraq War Ends" and "Nation Sets Its Sights on Building Sane Economy" showed what a different, better world might be like. Approximately eighty thousand copies were handed out in several cities around the United States.

Unfortunately, in critical design, irony can all too often be interpreted as cynicism especially in a discipline in which people expect solutions, functionality, and realism. As viewers, when we encounter critical designs we need to accept that appearances can be deceptive and similar to other cultural products; they require effort from the viewer. We explored this in the huggable atomic mushrooms part of a collection of products we designed with Michael Anastassiades in 2004-2005 called *Designs for Fragile Personalities in Anxious Times*. Each atomic mushroom was based on a nuclear test and available in small, medium, or large sizes. We were inspired by treatments for phobias in which patients are exposed to the source of their fear in increasing doses. In the case of our mushrooms, someone with a dread of nuclear

The New York Times

Nation Sets Its Sights on Building Sane Economy

True Cost Tax, Salary Caps, Trust-Busting Top List

By T. VEBLEN

The President has called for swift passage of the Safeguards for a New Economy (S.A.N.E.) bill. The omnibus economic package includes a federal maximum wage, mandatory "True Cost Accounting," a phased withdrawal from complex financial instruments, and other measures intended to improve life for ordinary Americans. (See highlights box on Page A10.) He also repeated earlier calls for passage of the "Ban on Lobbying" bill currently making its way through Congress.

Treasury Secretary Paul Krugman stressed the importance of the bill. "Markets make great servants, terrible leaders, and absurd religions," said Krugman, quoting Paul Hawken, an advocate of corporate responsibility and author of "Blessed Unrest, How the Largest Movement in the World Came into Being and Why No One Saw It Coming."

"At this point, the market is our

leader and our religion. No wonder the median standard of living has been declining so much for so long."

Krugman said that the new Treasury bill seeks to ensure the prosperity of all citizens, rather than simply supporting large corporations and the wealthy. "The market is supposed to serve us. Unfortunately, we have ended up serving the market. That's very bad."

Much as Roosevelt, after the Great Depression, put the brakes on C.E.O. wages and irresponsible banking practices, administration officials claim that today we need to rein in the industry that has caused such chaos and misery.

"The building blocks of post-World War II American middle-class prosperity have all been swept away," said House Speaker Nancy Pelosi, who initially op-

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Maximum Wage Law Succeeds

Salary Caps Will Help Stabilize Economy

By J.K. MALONE

WASHINGTON — After long and often bitter debate, Congress has passed legislation, fiercely fought for by labor and progressive groups, that will limit top salaries to fifteen times the minimum wage. Tying the bill to a plan of overall reform of the U.S. economy, the bill echoes a similar effort enacted by President Franklin Roosevelt in 1942, which was followed by the longest period of growth for the middle class in U.S. history.

"When C.E.O. salaries remain stable thanks to high taxation of high salaries, there's little incentive to take big risks with shareholders' money, and the economy remains in a steady growth mode," said Senator Barney Frank, one of the bill's co-sponsors. "But when C.E.O. salaries can fly through the roof, there's a very strong incentive for C.E.O.s

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TREASURY ANNOUNCES "TRUE COST" TAX PLAN

By MARCUS S. DRIGGS

The long-awaited "True Cost" plan, which requires product prices to reflect their cost to society, has been signed into law.

Beginning next month, throwaway items like plastic water bottles and other items which are wasteful or damaging to the environment will be heavily taxed, as in many developed countries. Steep taxes will also apply to large cars and gasoline.

The new plan calls for a 200 percent tax on gasoline, comparable to the one long in effect in most European countries. Companies and consumers are already switching in droves from inefficient gas vehicles to new electric cars. "We suddenly have a waiting list 200 names long for the EV1," said Jake Cluber, the owner of Cluber Chevrolet in

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IRAQ WAR ENDS

U.S. Army helicopters begin moving troops and equipment from Saddam Hussein's former Baghdad palace.

COURTESY ARMY.MIL

Recruiters Train for New Life
As a ban is imposed on recruiting minors, ex-recruiters nationwide look for new work. The Times follows one on his job-hunt odyssey through Manhattan and surrounding areas.

BY BARRY CLOAD, PAGE A13

Last to Die
Two proportional monuments — one to the Iraqi dead, 300 feet high, and one to the American dead, 15 feet high — are unveiled in Baghdad, and a five-year-old boy whose lifespan coincided with that of the Iraq War is remembered.

BY J. FINSTEEBA, PAGE A5

USA Patriot Act Repealed
Eight years later, a shamefaced Congress quietly repeals the much-maligned USA Patriot Act, unanimously ... or almost.

BY SYBIL LUDINGTON, PAGE A9

Evangelicals Open Homes to Refugees
Up to a million Iraqi exiles — nearly half of the total — will find sanctuary in Christian homes across the U.S., vows the National Association of Evangelicals. Other denominations are expected to follow.

BY W. WILBERFORCE, PAGE A7

Public Relations Industry Starts to Shut Down
The public relations industry has been criticized for misleading the American people, corrupting politicians, and even helping to start wars. Now, it's beginning the process of shutting down for good.

BY LOUIS BECK, PAGE A10

Troops to Return Immediately

By JUDE SHINBIN

WASHINGTON — Operation Iraqi Freedom and Operation Enduring Freedom were brought to an unceremonious close today with a quiet announcement by the Department of Defense that troops would be home within weeks.

"This is the best face we can put on the most unfortunate adventure in modern American history," Defense spokesman Kevin Sites said at a special joint session of Congress. "Today, we can finally enjoy peace — not the peace of the brave, perhaps, but at least peace."

As U.S. and coalition troops withdraw from Iraq and Afghanistan, the United Nations will move in to perform peacekeeping duties and aid in rebuilding. The U.N. will be responsible for keeping the two countries stable, coordinating the rebuilding of hospitals, schools, highways, and other infrastructure; and overseeing upcoming elections.

The Department of the Treasury confirmed that all U.N. dues owed by the U.S. were paid as of this morning, and that moneys previously earmarked for the war would be sent directly to the U.N.'s Iraq Oversight Body.

The president noted that the Iraq War had resulted in the burning of many bridges. "Yet our history with our allies runs deep," he said, "and we all know that friends forgive friends for anything. Or nearly." A spokesperson for the French Ministry of Defense confirmed that France would assist the U.S. withdrawal. "The U.S. helped the Soviet Union defeat Hitler. We do recognize that."

In conflict zones worldwide, leaders and rebels pledged peace. (See "In Conflict Zones Worldwide, Peace Moves," on Page A4.)

On Wall Street, reactions were mixed, with the Dow Jones Industrial Average up 84 points, to close at 4,212. While KBR stock was quickly downgraded to a "junk" rating of BBB-, defense contractors such as Lockheed Martin and Northrop Grumman started up.

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Ex-Secretary Apologizes for W.M.D. Scare

300,000 Troops Never Faced Risk of Instant Obliteration

By FRANK LARIMORE

Ex-Secretary of State Condoleezza Rice reassured soldiers that the Bush Administration had known well before the invasion that Saddam Hussein lacked weapons of mass destruction.

"Now that all of you brave servicemen and women are returning, it's important to us to reassure you, and the American people, that we were certain Hussein had no W.M.D.s and that he would never launch a first strike against the U.S.," Ms. Rice told a group of wounded soldiers at a Veterans' Administration hospital yesterday.

"I want you to know that if we

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Yes Men, *4 July 2009 New York Times*, 2009.

annihilation would begin with *Priscilla (37 Kilotons, Nevada 1957)*, the smallest huggable atomic mushroom in the series. The objects were created in a dry and straightforward way with the high attention to quality of materials, construction, and detail one would expect in a well-designed object. It is through its demeanor that one starts to wonder just how serious it is. Due to its softness it slumps, giving it a slightly pathetic look that, when you remember what it represents, begins to create conflicting emotions in the viewer.

Dunne & Raby and Michael Anastassiades, *Huggable Atomic Mushrooms: Priscilla (37 Kilotons, Nevada 1957)*, 2007-2008. Photograph by Francis Ware. Photograph courtesy of Francis Ware.

Dark design is not pessimistic, cynical, or misanthropic; it is a counterpoint to a form of design that through denial does more harm than good. Dark design is driven by idealism and optimism, by a belief that it is possible to think our way out of a mess and that design can play an active role. Negativity, cautionary tales, and satire can jolt the viewer out of a cozy complacency that all is well. It aims to trigger shifts in perspective and understanding that open spaces for as-of-yet, unthought-of possibilities.

CRITIQUING CRITIQUE

Without an intellectual framework it is very difficult to advance the practice of critical design; lots of projects happen but many simply repeat what has gone before. We need some criteria that make it possible to advance this form of design through reflection and critique or at least get a sense of how the area can be refined. Conventional design's success is measured against how well it sells and how elegantly conflicts among aesthetics, production, usability, and costs are resolved. How is critical design's success measured?

Design as critique can do many things—pose questions, encourage thought, expose assumptions, provoke action, spark debate, raise awareness, offer new perspectives, and inspire. And even to entertain in an intellectual sort of way. But what is excellence in critical design? Is it subtlety, originality of topic, the handling of a question? Or something more functional such as its impact or its power to make people think? Should it even be measured or evaluated? It's not a science after all and does not claim to be the best or most effective way of raising issues.

Critical design might borrow heavily from art's methods and approaches but that is it. We expect art to be shocking and extreme. Critical design needs to be closer to the everyday; that's where its power to disturb lies. A critical design should be demanding, challenging, and if it is going to raise awareness, do so for issues that are not already well known. Safe ideas will not linger in people's minds or challenge prevailing views but if it is too weird, it will be dismissed as art, and if too normal, it will be effortlessly assimilated. If it is labeled as art it is easier to deal with but if it remains design, it is more disturbing; it suggests that the everyday life as we know it could be different, that things could change.

For us, a key feature is how well it simultaneously sits in this world, the here-and-now, while belonging to another yet-to-exist one. It proposes an alternative that through its lack of fit with this world offers a critique by asking, "why not?" If it sits too comfortably in one or the other it fails. That is why for us, critical designs need to be made physical. Their physical

presence can locate them in our world whereas their meaning, embodied values, beliefs, ethics, dreams, hopes, and fears belong somewhere else. This is where the critique of critical design should focus, on crafting its coexistence in the here-and-now and yet-to-exist, and when done successfully, providing what author Martin Amis has called "complicated pleasure."

COMPASSES NOT MAPS

Using design as a form of critique is just one use for design, as is communication or problem solving. We believe that some design should always question prevailing values and their underlying assumptions and that this activity can sit beside mainstream design rather than replace it. The challenge is to keep evolving techniques that are appropriate to the times and identifying topics that need to be highlighted, reflected on, or challenged.

In *Envisioning Real Utopias*, Erik Olin Wright describes emancipatory social science "as a theory of a journey from the present to a possible future: the diagnosis and critique of society tells us why we want to leave the world in which we live; the theory of alternatives tells us where we want to go; and the theory of transformation tells us how to get from here to there—how to make viable alternatives achievable."[11]

For us, the fulfillment of this journey is highly unlikely if is set out like a blueprint. Instead, we believe to achieve change, it is necessary to unlock people's imaginations and apply it to all areas of life at a microscale. Critical design, by generating alternatives, can help people construct compasses rather than maps for navigating new sets of values.

Much energy is going into developing ways of extending life but very little consideration is being given to its social and economic implications. In *When We Live to 150* (2012) Jaemin Paik asks, "how would family life change if we all lived to one-hundred and fifty or beyond?" With up to six generations living together and the possibility of huge age gaps between siblings, the traditional model of the family would change dramatically, perhaps even becoming financially unsustainable due to the burden of its large membership. Her project explores the lives and structures of future families in an era of extended life spans by tracing the story of seventy-five year-old Moyra and her sprawling contract-based family. Like the flat-share system, it would be possible to have a family-share in which people move from family to family taking on different roles to suit their changing needs as their long lives unfold. Moyra decides to renew her thirty-year marriage contract with Ted, ensuring they receive better social support and tax benefits from the state.

Aged eighty-two, Moyra's second thirty-year marriage contract with Ted expires. She decides to leave Ted and move to a "two-generation" family where she joins a new husband and a fifty-two-year-old "child." Presented through a mockumentary and photographic vignettes the project does not offer a design solution or map but serves as a tool for thinking through our own beliefs, values, and priorities when it comes to the pros and cons of extreme life extension.

Jaemin Paik, *When We All Live to 150*, 2012.

By acting on peoples' imaginations rather than the material world, critical design aims to challenge how people think about everyday life. In doing this, it strives to keep alive other possibilities by providing a counterpoint to the world around us and encouraging us to see that everyday life could be different.