



Review of 'Massive Change'

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MASSIVE CHANGE

Author: Bruce Mau and the Institute without boundaries

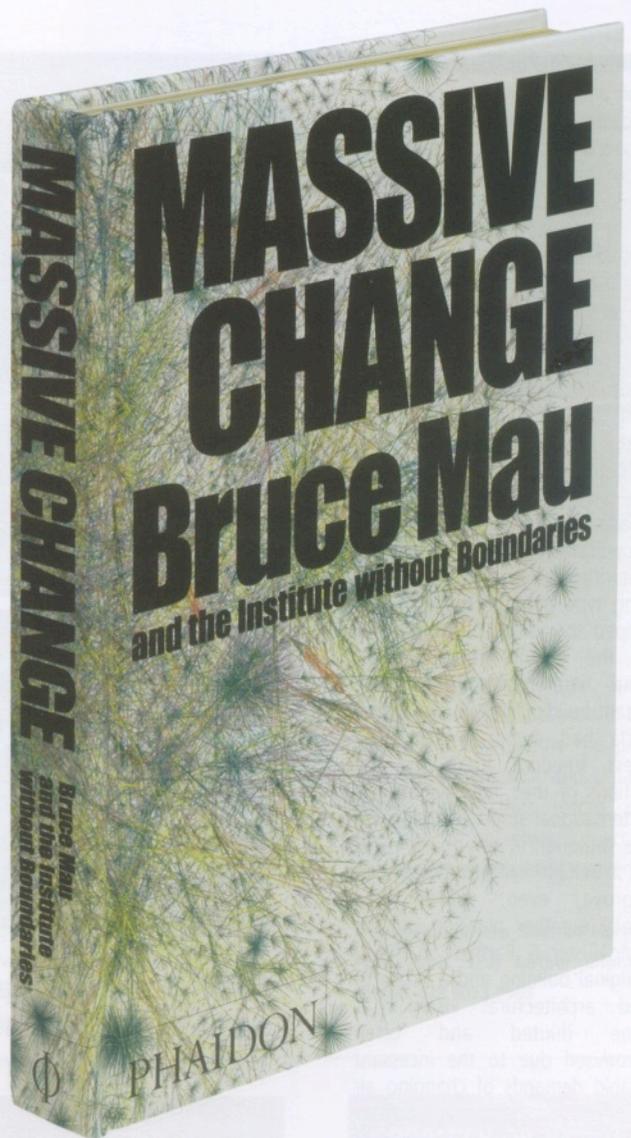
• 60

A number of books published recently, chart the extinction of previous societies and civilisations. From the disappearance of the Anasazi, to the decline of the Polynesian Islanders, we have developed an interest in societal and cultural demise. Victims of their own success, fragile societies often overlooked their ability to quickly exhaust their environments.

Massive Change is a project by Bruce Mau and **The Institute Without Boundaries**, which attempts to provide a global panorama of how design can shape, engage and promote a sense of environmental ecology. Beginning as an exhibition commissioned by the Vancouver Art Gallery and as an experimental postgraduate course for the George Brown College in Toronto, the project has blossomed into a weekly radio programme, a website, a documentary film and a book. Set against the current trend for 'negative journalism' **Massive Change** is an optimistic view of the world.

Opening with powerful warning images of the wreckage of our environment -such as the burnt out control room of reactor 4 at Chernobyl - Mau exposes complacency by telling us we only notice design when it fails. We are cushioned and blinded to the actual realities of the world "designed out" by our cars, products and lifestyles. We live our lives in "invisible systems." Taking the words of historian Arnold J. Toynbee as his central theme "The twentieth century will be remembered...as an age in which human society dared to think of the welfare of the whole human race." Mau declares **Massive Change** is "...not about the World of Design, but the Design of the World."

Shifting from the traditional categories of design, we are taken on an exploration of what Mau calls design economies: Urban, Living and Wealth, Movement, Energy, Information, Image, Market, Material, Military, Manufacturing, and Politics. As each category is discussed, new potentials, products, materials and ideas are identified and illustrated by



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contemporary scientists, thinkers, engineers, economists and inventors.

Each section is illustrated with images, information and comment that reveal the potential and limitations of our design capacities and in particular how they engage the dilemmas of poverty and disease facing the third world. **Massive Change** uses bold graphic layouts and cinematic imagery that zooms in and out at different scales. Text is placed strategically to confront us with the facts and figures featured in each 'Economy.'

Architecture is discussed in the 'Urban Economies' section. The issue of

increasing urban density is considered in relation to Manufactured Housing, Sustainability, and Property Law. The image of Buckminster Fuller's Dymaxion House is placed next to that of a house constructed with SIPs (Structural Insulated Panels) and the IKEA and Skanska mail order home. In discussing manufactured housing, Carol Burns from Taylor & Burns Architects in Boston, laments the dilemma of utilizing the industrial process of the assembly line, with that of the individually designed house; the difficulty of what she calls trying to make "clocks or clouds" with the same process. Meanwhile, we are told 12.5 million Americans live in mobile homes. ▶

► Michael McDonough's sustainable e-house, which was ordered, paid for and delivered to site from the internet, is an assembly of the latest off-the-shelf components. His ideas for suburbs as "organic micro farms" that literally feed the city, open up debate as to what lies beyond our fear of sprawl.

As we move from isolated parcels of land with discreet architectural objects, to a wider sense of territory as a continuous urban system, the book makes a plea for architects to rethink their approach. Jamie Lerner - an architect, urban planner and mayor of Curitiba in Brazil - shows how his particular approach and strategy has provided affordable, efficient and sustainable public transport, overcoming gridlock and congestion.

In the 'Information Economies' one of the most powerful images - and the books cover - is that of the Opte Project that uses one computer to track the entire Internet in one day. The mapping of this vast network reveals the pathways of our shared global mind. But the complexity of the

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internet - our information life-line - is constantly shifting, expanding by an incredible ten million new web pages per day.

The realm of 'Material Economies' reveals current research into nanotechnology and our ability to play with atomic structures. Synthetic materials now mimic and learn from nature. The silk spiders web is five times stronger - per relative mass - than steel, and is being bio-engineered for production. Aerogels or "frozen smoke" as it has been called, is a material that is 99% air but incredibly strong. It will bring a new lightness to our buildings and cities. Self-healing materials - like concrete that weeps gel into its cracks - are already at an advanced stage of research.

Coral reefs - the ultimate self-sustaining organisms - are admired and revered by ecologists. They are not unlike the Opte map of the Internet, where systems are inter-related and feed off one another. At our fingertips we have the capacity to destroy or create from a multitude of information. **Massive Change** opens our eyes optimistically to what that information can usefully do for us, and to show us what innovation exists. It is a welcome sounding across the uncertain terrain of our global design world. ●

Paul Clarke

Massive Change

Author: Bruce Mau and the Institute without boundaries

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www.phaidon.com; www.massivechange.com

Will we shift from the service of war to the service of life?

The design of defensive and offensive technologies, a practice centered on raw efficiency, has generated the twentieth century's dominant cultural mode. Innovations developed by the military have migrated to almost every design practice - from material development to command and control, to robotics and communication - providing exponential impact in the civilian sector. We are living in a "war machine," as renowned urbanist and military theorist Paul Virilio sees it. Can we reimagine our use of military-derived technological power?

MILITARY ECONOMIES

More than 5,000 pounds of humanitarian supplies "from the people of Japan" unloading at Saki Air Base in Iraq.